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FISHERY MARKET NEWS

NOVEMBER 1943

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UNITED STATES
DEPARTMENT OF THE INTERIOR
HAROLD L. ICKES, Secretary

FISH AND WILDLIFE SERVICE
IRA N. GABRIELSON, Director

FISHERY MARKET NEWS

A REVIEW OF CONDITIONS AND TRENDS OF THE COMMERCIAL FISHERIES

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FISHERY MARKET NEWS

November 1943 Washington 25, D. C. Vol. 5, No. 11

THE AGAR SITUATION

By Leonard S. Stoloff*

Until the attack upon Pearl Harbor, the United States had been dependent on the Orient for 92 percent of its supply of agar. Of this supply, about 20 percent was used for the preparation of bacteriological culture media. The War Production Board, recognizing the potential menace to the health services of the nation by the loss of the Oriental imports, restricted the use of agar to bacteriological purposes. The scarcity of agar and the purchase of it by the Defense Supplies Corporation to establish a stockpile have stimulated domestic production so that at present it is great enough to supply domestic bacteriological demands, but not combined domestic and Lend-Lease requirements. Careful screening of Lend-Lease demands may help to correct this situation.

During the past year, the U. S. Fish and Wildlife Service has been engaged in agar investigations. On the Pacific Coast, the work is being conducted in cooperation with the Scripp's Institute of Oceanography and on the Atlantic Coast, the investigations are in progress at the Technological Laboratory of the Service at College Park. The West Coast studies concern methods of extraction and storage of the seaweeds and an investigation of the conservation aspects of the established industry. At the College Park laboratory, the properties of bacteriological agar are undergoing scrutiny and some work is being done with the Atlantic Coast seaweeds with the aim of finding a suitable agar substitute. This paper is a preliminary report on the findings of the College Park laboratory.

At various times, the seaweeds listed in Table 1 have been reported as sources of agar. Of these seaweeds, those listed in Table 2 have been reported on the Atlantic Coast.

Table I - Seaweed Reported As Sources of Agar

Seaweed	Reported Occurrence	Remarks
Ahnfeltia plicata	Russia (Maritime Coast and White Sea)	Maritime grade best
Camphylaephora hypnaeoides	Japan, China	
Endocladia muricata	California	Reported originally by Fields (1921)
Euchema spinosum	Japan, China	Reported used to a considerable extent in these countries.
isiforme		
denticulatum		
Gelidium amansii	Japan, China, California	These seaweeds are main source of agar in Japan, China, and California.
cartilagineum	Japan, China, California, South Africa	
corneum	Japan, China, California	
australe	California	Gel similar to Irish Moss.
pristoides	South Africa	Gum difficult to dissolve, low gel strength, opaque.
Gigartina asperifolia	California	These seaweeds require special treatment to obtain gum.
canaliculata		
serrata		
Gloipeltis	California	
Gracilaria confervoides	Japan, China, Australia, South Africa, California.	This seaweed is main source of agar in Australia and South Africa.
lichenoides	Japan, China, Australia	
Phyllophora nervosa	Russia (Black Sea)	
rubens		
Pterocladia lucida	Australia	This genus is closely related to Gelidium.
capillaceae	Brazil	
sp.	California	
Suhria vittata	South Africa	Gel similar to Irish Moss.

* Technologist, Fishery Technological Laboratory, Fish and Wildlife Service, College Park, Md. Presented at the Meeting of the Washington Section, American Society of Bacteriologists, Washington, D. C., October 26, 1943.

Table II - Agar-weeds Reported on Atlantic Coast

Seaweed	Occurrence	Recorded by
Ahnfeltia plicata	Northeast coast from New Jersey to Arctic Circle. Perennial growing in rocky habitat.	Wm. R. Taylor
Euchema isiforme	Florida. Occurs in some fair patches.	Wm. R. Taylor Harold Humm
Gelidium corneum	One plant found in Florida. Never before reported there.	Wm. R. Taylor
Gracilaria confervoides	Northeast coast in shallow warm and quiet bays.	Wm. R. Taylor
	North Carolina coast, Beaufort region.	W. D. Hoyt Harold Humm
	Florida	Wm. R. Taylor

The question has arisen as to what is meant by the term "agar". The U. S. Pharmacopeia defines agar as "the dried mucilaginous substance extracted from Gelidium corneum and other species of Gelidium and closely related algae". The War Production Board in its enforcement of Order M-96 has defined agar as ".....any mucilaginous substance, whether dried or in other form, extracted from Gelidium corneum, Gelidium cartilagineum, Gelidium amansii, Gracilaris confervoides, Garcilaria lichenoides, Euchema spinosum, Euchema isiforme, Euchema denticulatum, Gigartina spinosa, Gigartina mamilosa, and from other species of the genera named above and closely related algae of the class Rhodophyceae. It is also known as "agar agar", "Chinese gelatin", and "Japanese gelatin". Neither of these definitions indicates the physical or chemical properties which are requisite in a satisfactory material for bacteriological culture media.

The agar of commerce is a gum common to many members of the red algae. When the dried gum is immersed in water it will swell to form a hydrophyll. Agar will take up as much as ten times its own weight of water in this manner. On heating a suspension of agar in water to approximately 90° C. it will form a solution which sets to a firm gel on cooling. The unique qualities of agar are the low concentrations in which it will set to a firm gel (as low as one-half percent of good quality agar will set) and the particular temperature range in which the transition from sol to gel takes place (approximately 37-39° C). The melting point of the gels formed is the same as the temperature of solution. This hysteresis effect may be explained by the theory that the gelation of agar is caused by a precipitation of the agar phase in the form of micelles which hold the liquid by a sponge-like mechanism. Melting of the gel requires resolution of the agar. The analogy to a sponge permits understanding of other physical phenomena of agar gels, such as syneresis.

Chemically, agar is the sulfuric acid ester of a linear galactan. The structural picture has been worked out by Jones and Peat (Figure 1).

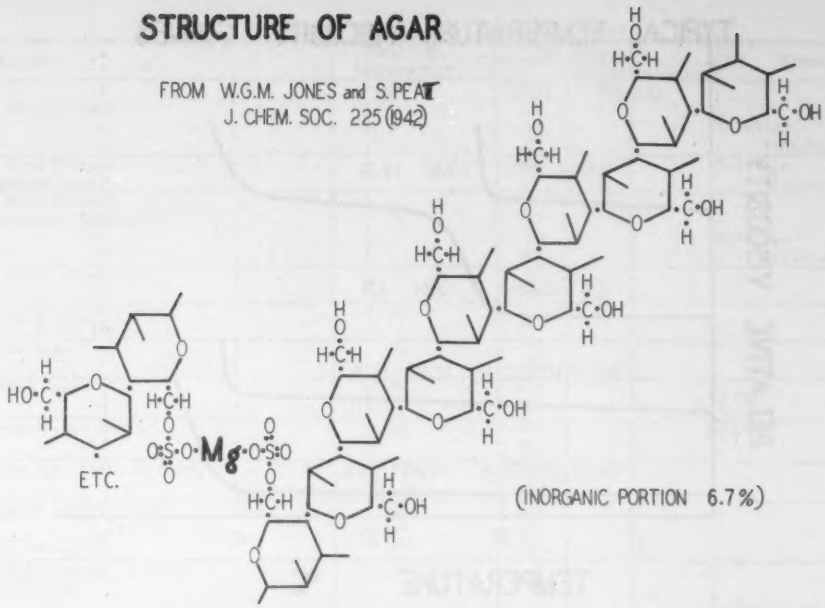
The unit chain is composed of nine d-galactose residues, mutually combined by 1:3 glycosidic linkages and terminating at the reducing end by a residue of l-galactose, united with the rest of the chain by a glycosidic linkage engaging C_4 and not C_3. The l-galactose member is esterified at C_6 with sulfuric acid. Actually it is inconceivable that the structure of agar can be this simple. The variation of characteristics between agars and the observation of fractions of different solubility within an agar would lead one to expect that it is a mixture of molecules of varying size and complexity probably built around the structure found by Jones and Peat.

It is the hydrolysis of the ester structure by acid and heat that destroys the jelling power. This structure also means that there is an irreducible ash content for any agar which varies between two and three percent as found by actual determinations. The sulfuric acid ester structure requires the presence of metallic ions and these are predominately magnesium and calcium.

When the Fish and Wildlife Service started its investigations there were two established seaweed industries on the Atlantic Coast. Alginates were being extracted from kelp on the Maine Coast and Irish Moss was being gathered along the New England Coast north of Cape Cod. The literature describes the gum obtained from Irish Moss as the sulfuric acid ester of a galactan. The basic structure appears to be similar to that of agar. The normal ash content, however, is much greater (approximately 20 percent) and concentrations of five percent are

STRUCTURE OF AGAR

FROM W.G.M. JONES and S. PEAT
J. CHEM. SOC. 225 (1942)



required to form a quasi-gel. This gel is soft, tends to flow at 37° C. and is very opaque. The hot solution of the gum is extremely viscous.

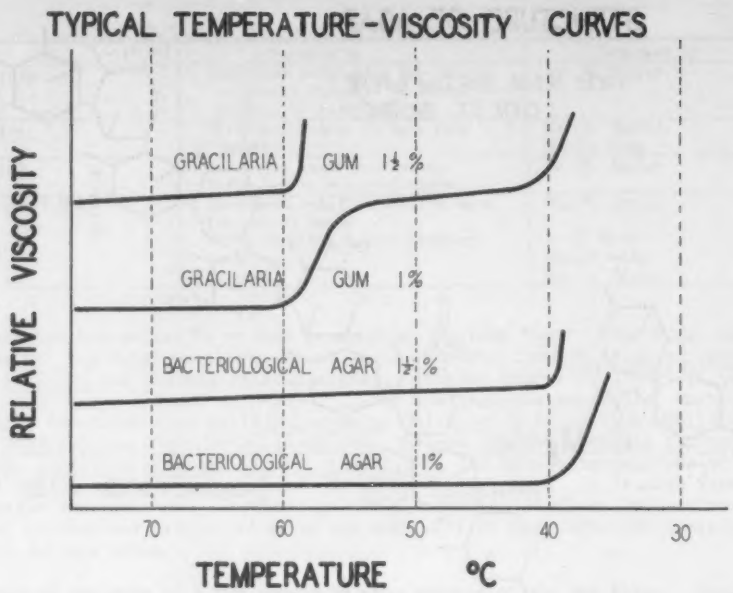
Since the gathering of Irish Moss is an established industry, we attempted to improve the gelling properties of the gum extracted from it. This may be done by the addition of various salts to the gum solution. However, the use of these salts is objectionable to the bacteriologist and the gel is still opaque. By first washing out the more easily soluble fractions of the weed, the remaining more difficultly soluble portions may be obtained. These portions have successively greater gel strength. An extract capable of forming a fair gel in three percent concentration has been prepared, but the gel is still opaque and the warm solution, viscous. An improved extract of Irish Moss having these same properties is on the market. This material can be used for various special bacteriological purposes, but should not be regarded as a substitute for agar in standard techniques. The physical limitations of the material should also be kept in mind.

The presence of the seaweed Gracilaria confervoides in great abundance along the North Carolina Coast was brought to our attention by the Duke University Marine Laboratory. The properties of the gum from this seaweed were studied very carefully, since it is similar to agar, and the weed has been reported as used for agar from five other regions of the world.

This gum forms transparent gels in the same concentrations and of the same strength as commercial agar. However, the temperature of transition between sol and gel is higher than for normal agar. In fact, there are two transition temperatures (see Figure II).

When the viscosity of agar solutions is followed as they cool, a sudden rise is noted at the transition temperature. In such studies, however, the viscosity of Gracilaria gum at the lower concentrations shows two sudden rises. These data were interpreted to mean that the gum contained at least two components, but attempts to effect a separation have been unsuccessful. Gracilaria gum gels also exhibit extreme syneresis. In 24 hours, they will exude 10 to 20 times as much liquid as similar concentrations of normal agar. This large amount of free liquid causes the gel to slip in its container and induces spreading colonies when the gum is used for bacteriological media.

Although Gracilaria gum is unsuitable for bacteriological work, it is similar enough to agar to replace it for some industrial purposes. This gum is now being produced com-



mercially, and we have been informed it is being used in foods. Some experimental amounts have also been purchased for tungsten wire drawing.

Gum extracts of Gracilaria confervoides from three other sources, California, South Africa, and Australia, have been examined. The gums from California and Australia were markedly similar to each other in physical properties, but differed from those of our Atlantic Coast or South Africa. They were not, however, suitable for bacteriological work because of low gel strength and high transition temperature from sol to gel. The gum from South Africa was different in physical characteristics from the other three and was the only one with physical characteristics suitable for bacteriological purposes.

The seaweeds, Ahnfeltia, Euchema, and Gelidium have not been found in sufficient abundance along the Atlantic Coast to warrant harvesting.

A number of seaweeds have been reported from Florida as containing agar-like gums. Extracts have been examined from those seaweeds reported as being most similar to agar. None were suitable for bacteriological work, all having high gelling temperatures and low gel strengths. The solutions of these gums were viscous.

The diversity in physical characteristics of agar-like materials soon became evident. This is shown in Table III.

The various parties interested in standard bacteriological work realized the lack of a definition for bacteriological agar. Requests that the Fish and Wildlife Service undertake researches which would yield a set of standards were made by Dr. R. S. Breed, Chairman of the Committee on Standard Methods of Milk Analysis of the American Public Health Association, Dr. A. W. Conn, Chairman of the Committee on Pure Culture Methods of the Society of American Bacteriologists, and the Difco Laboratories. This research is now in progress.

The program consists of devising test methods for the physical properties of agar, such as transition temperature, gel strength, elasticity, syneresis, clarity, and viscosity; for its chemical properties such as moisture, ash, biologically active impurities, and miscellaneous impurities; and for its biological properties as they affect the characteristics of organisms grown on it. Typical samples of agar are being furnished from the stockpile by the Defense Supplies Corporation. These will be analyzed according to the devised procedures. When the tests have been completed, the data are to be submitted to competent authorities for criticism and standards established for bacteriological agar.

Table III - Properties of Seaweed Extracts

Product	Gelling Temperature	Gel Strength		Remarks
			Concentration	
	°C.	Grams	Percent	
Irish Moss Extract		0	2	
		10	3	Solution viscous
		75	5	
Irish Moss Extract (prewashed weed)		165	3	Solution viscous
Irish Moss Extract (commercial, Improved)	31	15	1	
		90	3	Solution viscous
		300	5	
Strip Agar (commercial)	37	80	1	
		270	1½	
Gracilaria confervoides Extract (South Africa)	37	187	1	
		337	1½	
Japanese Agar	38	70	1	
		80	1½	
Reclaimed Agar	39	113	1	
		287	1½	
Bacto-agar (new sample)	39	215	1	
		350	1½	
Gelidium Agar (Lab. extract)	39	360	1	
		450	1½	
Gracilaria confervoides Extract (North Carolina)	43 and 59	113	½	
		407	1	
		650	1½	
Gracilaria cornea (Extract) (Florida)	46	0	1	
		10	2	
		15	3	Solution viscous
Gracilaria confervoides (Australia) Extract	46	95	1	
		167	1½	
Gracilaria confervoides (California) Extract	47	120	1	
		190	1½	
Gracilaria floridana (Florida) Extract	48	20	1	
		110	2	Solution viscous
		210	3	

We hope that promulgation of standard test methods and specifications for bacteriological agar will accomplish two purposes. First, it will direct present researches for bacteriological agar toward a definite goal. Second, it will provide the bacteriologist with a product upon which he can rely for uniform results.

Summary--Because of lack of Oriental imports, the use of agar has been restricted to bacteriological purposes. Domestic production has expanded sufficiently to meet domestic bacteriological needs. The U. S. Fish and Wildlife Service is carrying on agar investigations on both coasts--the Pacific investigations relating to the established industry and Atlantic investigations related to new sources of agar. A number of Atlantic Coast seaweeds have been examined. Irish Moss extract can be improved, but is not a complete substitute for bacteriological agar. Extracts of Gracilaria confervoides suitable for industrial uses have been obtained but are not suited for bacteriology because of high gelling temperature and excessive syneresis. Extracts of Florida weeds have not been satisfactory for bacteriological purposes. The diversity in the physical properties of agar-like materials and the lack of a definition of bacteriological agar led to requests that the Fish and Wildlife Service undertake researches leading to standards for bacteriological agar. These researches are now under way.

The program consists of devising test methods for the physical properties of agar, such as transition temperature, gel strength, elasticity, syneresis, clarity, and viscosity. Chemical determinations include moisture, ash, and undesirable impurities. When the tests have been completed, standards will be established after consultation with competent authorities. It is hoped the results will benefit the bacteriologist by serving as a goal for agar investigations and providing him with a product on which he can rely for uniform results.

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THE VALUE OF PLANKTON AS A FOOD

By Louella E. Cable*

"Plankton" is a term applied to a large group of small organisms, both plant and animal, having a common mode of life. It is a classification which includes all organisms that float or swim freely in the water, but regardless of their activity, are incapable of making long, voluntary, horizontal journeys, although some make considerable vertical migrations under the stimulus of sunlight or temperature changes. Many levels of the systematic classification of life are represented in the plankton, from the simplest one-celled plants and amoeboid animals to very complex little creatures, the crustacea. The young of many of the higher forms are also planktonic for a time during their early developmental stages.

The inhabitants of various bodies of water have been divided into three faunistic groups with regard to their habits of life, thus: Bottom dwellers, free swimmers and plankton. The importance of large bottom dwellers (oysters, clams, mussels, conchs, snails, crabs, lobsters, etc.) and of the free swimming fish, mammals and reptiles, has long been recognized. The vast multitudes of tiny denizens of both fresh and salt waters, the plankton, were undreamed of until the invention of the microscope and their economic value as the producers of food was only discovered within the last several decades.

The microscopic pelagic plants are the chief producers. They are mostly single-celled organisms capable of manufacturing, in their bodies, with the aid of sunlight, complex organic compounds from inorganic substances present in the surrounding water. They then become the food of the animal components of the plankton which, themselves, are wholly incapable of gaining nourishment from the inorganic substances as they occur in the water. The original producers of nutriment, the indispensable elements in the cycle of aquatic life, are the small one-celled microscopic planktonic plants described as microplankton. The consumers, on the other hand, are comparatively large single or many-celled planktonic animals, the macroplankton. It is natural, therefore, to classify plankton roughly as vegetable and animal or, more technically, as phytoplankton and zooplankton.[Note the designations on the diagrams.]

Plankton may be further classified as oceanic, and neritic or coastbound. The oceanic plankton is that far out at sea. The neritic plankton is found close inshore and includes:

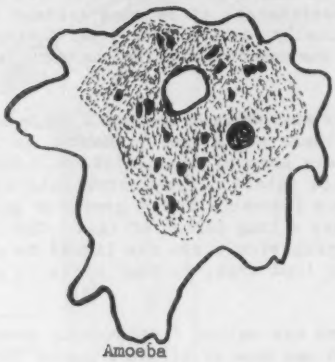
1. The pelagic larvae of the bottom dwellers, such as oysters, starfish, crabs, lobsters, etc.
2. The forms that survive unfavorable seasons in the form of resting spores on the bottom. Diatoms, cladocera, copepods and many other small aquatic forms survive severe droughts and critically high or low temperatures in a quiescent stage known as a resting spore or, in some cases, a winter egg. The resting spores and winter eggs are able to withstand adverse living conditions for long periods and develop a new generation of individuals when living conditions again become favorable. It is because many of the organisms which make up the plankton are able to survive in this manner that they appear in ponds formed by the run-off after a rain, although there may have been no water there for many months past. This habit of survival in a resting stage also explains why it is possible to obtain these tiny organisms, within a few days, by the simple method of placing a bit of meadow hay in a shallow dish of water. The spores adhering to the vegetation develop rapidly in water with proper light and temperature conditions.
3. The pelagic eggs and larvae of fish that spawn in shallow water.
4. Many others held inshore by an unknown bond, perhaps food and temperature.

The plankton organisms are of almost universal distribution. They are found in the oceans, rivers, lakes, and ponds the world over. Some species may have a local distribution in one body of water where conditions are particularly favorable and yet crop up in far distant places where identical conditions prevail. Some form of plankton is found at all latitudes. No climate is too hot or too cold to support plankton of one type or another. Plankton is certain to be present in the water wherever there are fish, for even if the adult fish do not feed on plankton, the smaller fish or bottom dwellers they eat, do so; and the young of most fish must have plankton during the early stages of life. Although

* Aquatic biologist, stationed at Fishery Technological Laboratory, Fish and Wildlife Service, College Park, Md.

SOME TYPICAL FORMS OF ZOOPLANKTON
(Greatly magnified)

Euglena



Amoeba

Sagitta

Starfish Larvae

Oyster Larvae

CRUSTACEA

Ostracod

Amphipod

most fish depend principally on zooplankton, the phytoplankton must also be present to furnish nourishment for the zooplankton.

The most abundant forms of the phytoplankton are the diatoms. Areas where diatom concentrations occur are often referred to as "pastures of the sea." Everyone is familiar with and recognizes the truth of the humorous adage that "all flesh is grass." It is equally true that "all fish are diatoms," if we include also the smaller groups of the phytoplankton. When one considers that all the fish and even the great whales depend ultimately on the tiny one-celled plants for their sustenance, it becomes evident that millions of tons of these organisms must be produced annually for food alone, yet instruments are not made delicate enough to weigh one of them. One cannot visualize the myriads of these organisms that must exist.

The diatoms surround themselves with walls of silicon dioxide in the form of two valves, one of which overlaps the other. These walls are ornamented by characteristic patterns, some of exceptional beauty, which are used by taxonomists to identify species. At death of the diatom cell, the walls remain intact. They accumulate at the bottom of the body of water. In localities particularly favorable to the growth of diatoms, the accumulations may reach considerable thickness over a long period of time. One deposit at Lompoc, California, formed on the bottom of a prehistoric sea now lifted by geological change in the earth's crust to form a part of the land area, is many miles in extent and over 700 feet thick in places.

Such deposits of fossil diatoms are called diatomaceous earth. Many uses have been found for this material. The oldest use made of it was a powder for polishing metals. Because it is porous, it was used as an absorbent for nitroglycerine in the manufacture of dynamite and as a filter for liquids, especially those of sugar refineries. Diatomaceous earth is also used to insulate blast furnaces, to strengthen concrete, and as a filler in the manufacture of rubber.

The herring is probably the most important food fish in the world, occurring in great abundance on both sides of the Atlantic. It feeds on small planktonic forms, chiefly copepods and larvae of worms, molluscs, crustacea and gastropods (snails), diatoms and peridinians. Herring, in turn, are preyed upon by several species of fish, squid and even by some species of whales. Included in the herring family is the white shad which feeds on the smaller planktonic forms during its first summer which is spent in the fresh water of the rivers. As an adult fish, it eats mysis and other large crustaceans.

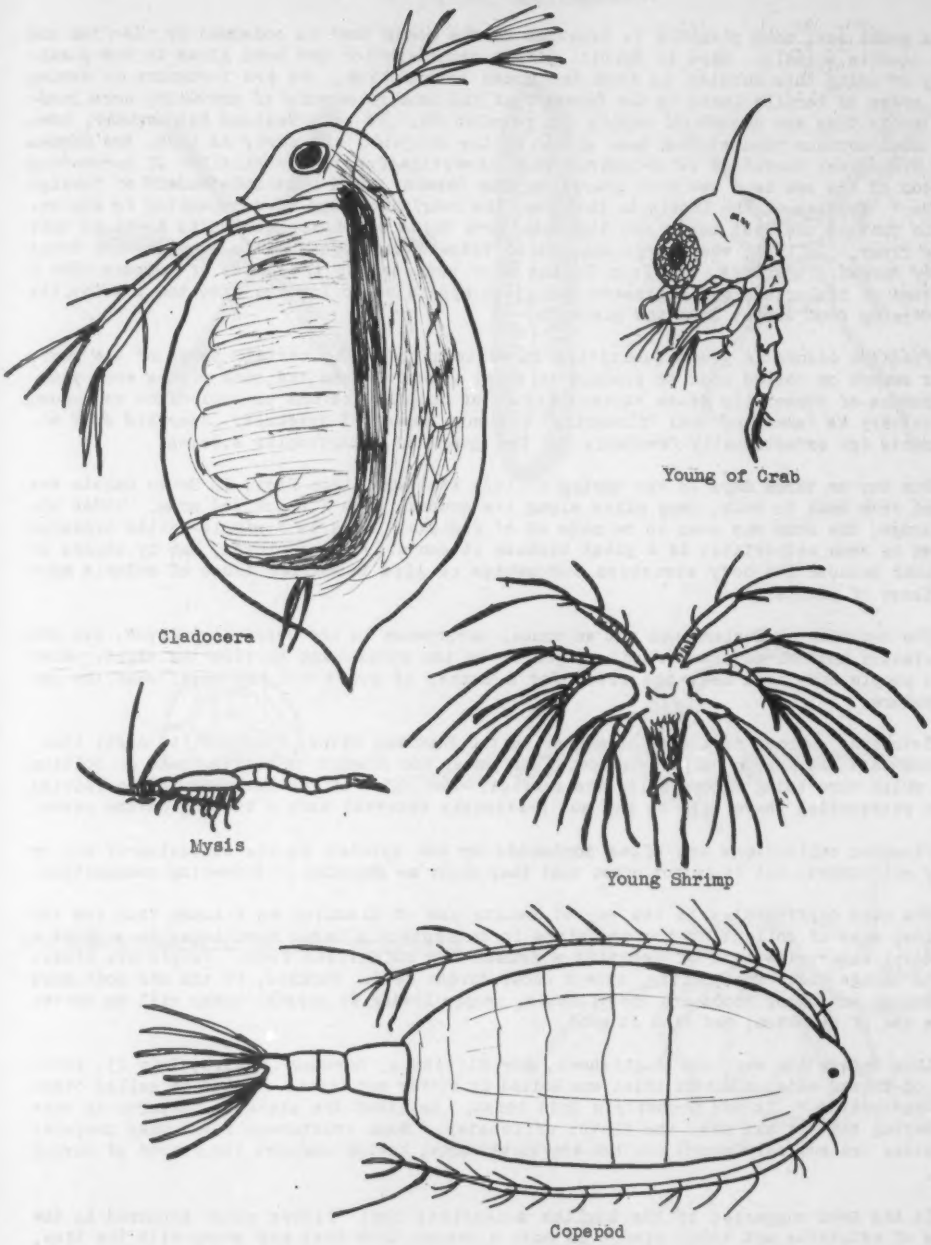
Menhaden are among the few fishes which continue throughout life to subsist chiefly on diatoms and peridinians (two of the most common phytoplanktonic forms). They also feed on the most minute crustacea.

Mackerel are voracious feeders. When certain types of plankton are abundant, mackerel frequently cram their stomachs until they become considerably distended. The young eat chiefly immature copepods, ostracods, shrimp, crabs, lobsters, and even small fish. Sagitta, an arrow-shaped worm, and shell-bearing molluscs known as pteropods, have been found to fill the stomachs of adult mackerel at times during summer and fall in localities where they are plentiful. It is not unusual for mackerel to eat their own eggs and the eggs of other fish. During the spring, in the North Atlantic, they commonly eat large quantities of copepods of the genus Calanus which are known as "red feed" because of their reddish-orange color. The presence of red feed in the stomachs of mackerel causes very rapid and extensive spoilage or break-down of the surrounding flesh within 24 hours after the fish have been caught and packed in ice for shipment. No method for retarding this spoilage has been found. Fishermen experience heavy losses because of it. Fortunately, it occurs only when mackerel have filled their stomachs with red feed. Mackerel that have fed on other types of plankton keep as well on ice as other species of fish. Fishermen report that painful sores on their hands have resulted from handling mackerel containing red feed, known to them as "red-pepper."

Plankton is the food of many of the small fishes such as the very abundant fundulus, gobies, minnows, silversides and anchovies which are the favorite foods of many larger fish.

Many fishes demonstrate definite food preferences. Their stomachs will contain a concentration of one or a few organisms at a time when other organisms are known to be present in the water in the particular locality where the fish were feeding. Even the whales, which

CRUSTACEA (Continued)



feed on plankton, are selective feeders. The reasons for these food preferences are not known.

Plankton: fish or human food?

A great deal more plankton is produced in the ocean than is consumed by the fish and other aquatic animals. Here in America little consideration has been given to the possibility of using this surplus as food for human consumption. We are fortunate in having great areas of fertile lands in the interior of the country capable of producing more land-grown foods than are needed to supply the population. In both England and Germany, however, much serious thought has been given to the subject. As early as 1939, the German State Biological Institute of Helgoland was "investigating the possibility of harvesting plankton of the sea as a new food source to make Germany still more independent of foreign imports." Studies of the Institute indicated the nutritive value of zooplankton is equivalent to that of the best meats and the nutritive value of phytoplankton is equal to that of rye flour. In 1941, when large numbers of vessels carrying food to England were being sunk by German submarines, Sir John Graham Kerr proposed to the House of Commons that a committee of biologists and engineers should be appointed to inquire into the possibility of obtaining food direct from the plankton.

Plankton occurs in great quantities in certain places at certain times of the year, yet it cannot be relied upon to produce in equal quantities in the same places each year. The growths of especially dense concentrations of zooplankton and phytoplankton are known respectively as "swarming" and "flowering" and only appear at irregular intervals when environments are exceptionally favorable for the growth of a particular species.

For two or three days in the spring of 1923 the Vermillion River in South Dakota was covered from bank to bank, many miles along its course, with a thick red scum. Under the microscope, the scum was seen to be made up of Euglena. This is a single-celled organism classed by some authorities as a plant because it contains chloroplasts, but by others as an animal because its body structure and habits of life resembles those of animals more than those of plants.

The swarming of Euglena was not an annual occurrence in the Vermillion River, but was sufficiently unusual to draw crowds of people to the river bank to view the sight. Most of the people had lived near the river for a number of years but had never seen the red scum before.

Ostracods swarmed in a similar manner in the Pamonkey River, Virginia, in April 1940. They formed a brown scum on the surface of the water and clogged collecting nets of bolting cloth which were being fished below the surface. The chief of the Pamonkey Indians living on the reservation there said he had not previously observed such a coating on the river.

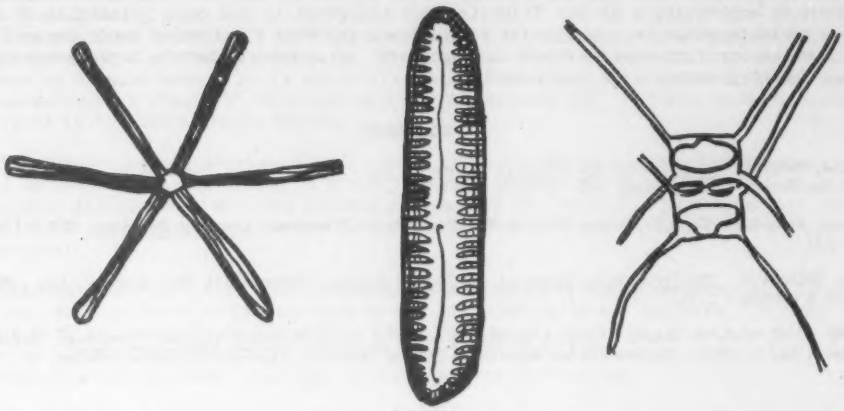
Plankton collections are often dominated by one species to the exclusion of all or nearly all others, but it is not often that they occur as swarming or flowering communities.

The main difficulties in the way of making use of plankton as a human food are the practical ones of collecting the organisms in sufficiently large quantities to support a commercial enterprise, and of creating a demand for unfamiliar food. People are always slow to change their food habits, except under direst need. Perhaps, if the war continues long enough and other foods are unobtainable, people living in coastal areas will be driven to the use of plankton, and find it good.

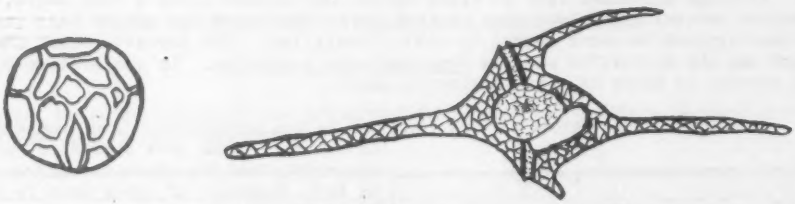
Long before the war, one Englishman, Sir William A. Herdman (Nature, July 23, 1891) tells of having eaten plankton which was boiled in butter and spread on what he called "thin bread-and-butter." It was probably a thin toast. He liked the plankton prepared in this way, saying that it had much the flavor of lobster. Some crustacean forms when prepared for eating are not only nutritious but are quite tasty, having somewhat the flavor of shrimp paste.

It has been suggested by the English scientists that "filter nets" anchored in the mouths of estuaries and tidal rivers in such a manner that they may swing with the tide, separating organisms from the water 24 hours of the day, could be operated commercially. On the west coast of Scotland, the growth of plankton is particularly rich in the lochs

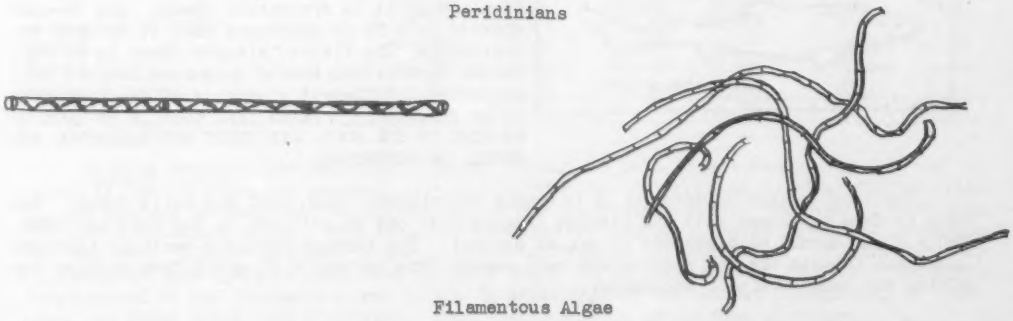
SOME TYPICAL FORMS OF PHYTOPLANKTON
(Greatly magnified)



Diatoms



Peridinians



Filamentous Algae

and estuaries. Prof. A. M. C. Hardy has calculated that ten nets fishing 12 hours would make a catch of approximately 525 pounds, dry weight, of plankton which he estimates would feed 357 people. The size of the nets used in making these calculations was not stated, but it is doubtful that there is any place along our coast where plankton could be obtained regularly in such large quantities, by this method. Perhaps it will be just as well if we do not compete with the fishes for food, but let the fish strain the plankton from the water and convert it into fine flavored flesh to be served on our tables. The elimination of destructive exploitation of our fisheries and adherence to the best principles of conservation would increase the productivity of the fisheries many times above their present yield. Let us raise our fisheries to their highest level of abundance before turning our thoughts to the use of plankton as a human food.

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SOME TECHNICAL NOTES ON THE HANDLING OF ALASKAN SLEEPER SHARK

By Lyle Anderson*

Although fishermen have at times called the sleeper shark a "mud shark," the Fishery Products Laboratory at Ketchikan, Alaska, has discouraged the use of this term because it is also applied to other sharks in other localities. The correct common name is sleeper shark and the scientific name is Somniosus microcephalus. In the eastern U. S. markets, the species is known as Alaskan sleeper shark.

Fishermen should devote as much attention to the proper handling of shark as to halibut or salmon. Some boat operators, unfortunately, apparently feel that shark is too low-priced a fish to ice. However, if shark meat is not iced well even though it is reasonably fresh, the freezer storage life is so shortened that it becomes unmarketable. The flesh of sleeper shark is of different texture than that of salmon and halibut and, therefore, different standards of handling have to be followed. TRIPS THAT COME IN ON DECK OR UN-ICED IN THE HOLD ARE UNFIT FOR MARKETING AND SHOULD BE CONDEMNED.

The usual method of dressing is to remove the viscera, head, tail and belly flaps. The body is then sectioned into the largest lengths that can be put down in the hold and iced. Belly flaps should be discarded at sea at present. The largest possible sections are iced unskinned because the cut flesh grows very ragged from contact with water from melting ice giving the product a poor appearance.

The maximum period of time that iced shark can be held on a fishing trip has not yet been determined. It is certain, however, that shark does not keep in ice as well as halibut, which ices exceptionally well.

It is essential that fishermen kill sleeper sharks by bleeding them, just as is done with stock in a slaughter house. Deep in the throat of a shark between the foremost pair

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of gill openings, lies the main aorta artery from the heart. The fishermen should cut this artery and let the fish bleed. The heart should not be stabbed or it will stop pumping the blood out. The head should not be shot with a gun or cut off with a knife, because either will paralyze the heart. If the shark is not bled, the entire flesh will have short, thread-like flecks of blood that make the raw flesh appear pink instead of white and the cooked flesh appear brown instead of white. THE SHARK MUST BE BLED OR THE FLESH WILL HAVE AN UNDESIRABLE APPEARANCE.

When the fare is landed, the fish should be cut into the largest pieces that permit rapid removal of the backbone and skin. The dark red flesh appears to have a bitter taste and must be trimmed away. It is generally found convenient to prepare finished sections that measure about 4"x4"x3½", although most of the sections will be found to be wedge-shaped or tapered in one dimension or another.

The fillets or sections should be rinsed in sea water rather than fresh water. They should be frozen on metal sheets in a sharp freezer rather than on pipes. They should then be tempered and glazed. When the fillets are stacked for storage, the stacks will collapse unless supported by standards because the fillets have no backbone or skin to help in preventing bending.

Sleeper shark should be handled rapidly and shipped to the market for sale as soon as possible. When carloads of fish are made up for distribution in the mid-west, the cars should be iced with at least 20 percent salt. It is recommended that the product be sold to consumers in a semi-frozen state if possible, and that they be instructed to use it the day purchased because the fish does have a high drip on defrosting.

Shark is not an unknown commodity in fish markets: it is being produced in Florida, Southeastern Alaska, and at various points on the Pacific Coast. The Ketchikan Fishery Products Laboratory has received repeated inquiries from most of the large fish houses in the mid-west area regarding the availability of shark loins.

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NOTES ON THE COMMERCIAL FISHERIES OF LAKE OKEECHOBEE

By C. West Jacocks*

The latest available compilations prepared by the Fish and Wildlife Service list the following production in Lake Okeechobee:

Item	1940		1939		1938	
	Pounds	Value	Pounds	Value	Pounds	Value
Catfish and bullheads	1,529,900	$30,611	1,180,600	$49,882	1,249,800	$47,871
Crappie	605,800	18,174	721,000	23,215	438,600	14,929
Sunfish	396,800	11,904	540,800	17,655	361,300	12,036
Soft shell turtles	145,900	2,190	169,500	3,942	285,000	5,477
Total	2,678,400	$62,879	2,611,900	$94,694	2,334,700	$80,313

Fishing Grounds--The principal fishing grounds in Lake Okeechobee in Florida are located in the northern and western portions of the Lake, beginning at about Taylor Creek in the extreme northern end and extending around the western rim to the town of Clewiston on the southwestern shore. The towns of Okeechobee, Lakeport, Moore Haven and Clewiston are the main fishing centers. A small amount of fishing is done in the southern end near Belle Glade, and there is even less activity along the eastern shore. Important producers are located at the Kissimmee River bridge on State Highway 29, and at Okeechobee, at Lakeport, at Moore Haven, and Clewiston. Some scattered fishing is done elsewhere.

Species--Perhaps 90 percent of the take is catfish, with crappie and bluegill bream (sunfish) comprising the remainder. The latter two species are combined under the name of "perch" or "scale fish" in sales by the fishermen. Some turtles and frogs are taken. The frog business now is decidedly reduced, attributed to the fact that frog catching is vigor-

* Asst. Area Coordinator, Office of the Coordinator of Fisheries, Jacksonville, Fla.

ous work normally performed by the younger men, who now are absent from the fishery. Catfish are taken throughout the year, crappie in the fall and winter, and bream in the spring. The greatest production occurs in the five months from November through March.

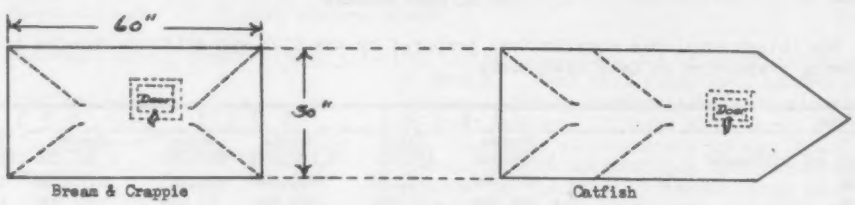
Gear--Both seines and wire fish traps are used. The seines measure up to 1,000 yards in length. Frequently two seines are tied together and operated as one. The seines are made up with from 4-3/8 to 4-1/2 inch mesh (stretched measure) in the wings, 3-3/4 inch mesh for foot and circle, and from 2-1/2 to 3-1/4 inch mesh for the bag. The depth of the net is from 30 to 60 meshes, depending on the water being fished.

Traps are built of ordinary double-dipped 1½ inch mesh chicken wire, 60 inches deep. One roll (150 linear feet) of wire will make 10 catfish traps or 12 crappie and bream traps, the difference resulting from the extra funnel in the catfish trap. Catfish are lured into the traps with scrap fish, while the bream and crappie traps are not baited. Both traps are cylindrical or barrel-like in shape, approximately 30 inches in diameter and 60 inches long. The catfish traps have two lead-in funnels in one end with the other end tapered and closed, while the bream-crappie traps have lead-in funnels in both ends. Bream and crappie will remain in a single funnel trap, but the catfish escape unless a double funnel is used.

In the northern portion of the Lake, near the mouth of the Kissimmee River, newly-made traps are fished for bream in the spring of the year. They are removed from the water in the late summer to be dipped in tar and returned to the water for fall and winter crappie fishing. Crappie do not object to the black coating, but bream will not enter. Catfish traps are dipped in tar while new. When dipped, the wire will last about one year or twice as long as when used undipped.

The water around Lakeport on the west side of the Lake does not affect the wire as much as does the water in the northern area. Traps fished in clear water near Lakeport are used without dipping and last about a year and a half. Fish do not enter black, tar-covered traps. Submersion of traps discolors the wire until it blends with the shade of the water.

Most of the operators use houseboats which they move about from place to place seeking the best fishing. The houseboat serves as an operating base, providing food and shelter



Cylindrical wire traps used in Lake Okeechobee, Florida

for the crews. The catfish are skinned at the houseboat by the crew, and sent in dressed form to the shore plant. Runboats contact the houseboats daily. Houseboat crews remain away from shore bases three or four days at a time.

Most of the run boats and seine boats use second-hand automobile engines for power and are propelled by a two-bladed bronze wheel from 14 to 15 inches in diameter, left-handed and weedless. There are approximately 100 such boats on the Lake. The industry also employs approximately 25 boats propelled by outboard motors of about five horsepower equipped with weedless propellers.

Prices--The following prices were reported for sales of fish by fishing operators late in 1943, f.o.b. Okeechobee:

Catfish	- 27 cents per pound	Crappie	- 20-25 cents per pound
Turtle meat	- 20 " " "	Frog legs	- $1.50 per pound

Supplies--The fishermen are using wartime rope and consider available grades to be satisfactory. They reported they had formerly used 15 Manila. They now use 18 wartime as a substitute and get by very well after the first stretching. Barrels rather than boxes are used in shipping the fish. Producers reported that barrels were poorly made in some instances, re-coopering being necessary to the extent of renailing, and that the price per barrel had recently advanced from $1.00 to $1.25. Barrels are of soft wood but catfish shippers also use heavy oak barrels. In some barrels there are fitted, metal cans capable of holding 100 pounds of catfish meat. Ice is packed around the suspended can during shipment. These barrels are returned to the shipper by the consignee at a cost of 45 cents in express charges, regardless of the shipping point.

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CATCHES OF SMALL PILCHARDS RESTRICTED IN WEST COAST COORDINATOR'S ORDER

Area II, Fishery Coordinator's General Direction No. 7 is quoted as follows:

Pursuant to paragraph (n) of the order entitled "Coordinated Pilchard Production Plan" (8 F.R. 9233), being Order No. 1838 of the Secretary of the Interior, hereinafter called the Pilchard Order, because the taking and delivery of excessively large and numerous loads of small pilchard tends to reduce the tonnage of large pilchard caught and delivered and thus to affect adversely the production of canned pilchard required for military and essential civilian use and because I deem it necessary to accomplish the purposes of the Pilchard Order, I hereby issue the following General Direction No. 7, for the observance of which by the fishing captain of any particular vessel the permittee thereof shall be responsible:

(A) The maximum load of small pilchard which may hereafter be brought into the port of Monterey including Moss Landing is hereby set at 30 tons.

(B) Any person bringing into Monterey or Moss Landing a load of small pilchard more than five tons in excess of the maximum limit set in paragraph (A) above, and any person taking delivery of any part of such load in excess of the limits so fixed plus the five ton tolerance except pursuant to a direction expressly applicable to such excess tonnage given by the Port Supervisor or his Assistant with full knowledge of the facts, shall be guilty of violating this direction, and subject to remedial proceedings as are other violators of the Pilchard Order under paragraph (o) thereof. In addition, the Port Supervisor may, in his discretion, delay dispatching any vessel bringing in such a load, for delivery of its load, or may cancel any dispatching direction already given for such load, or as to any part thereof, until all other pilchard deliveries in the port for that day are completed.

(C) No person shall bring into either Monterey or Moss Landing a second load of small pilchard within twelve hours of a previous load of small pilchard.

(D) The phrase "load of small pilchard" as used herein shall be taken to have the same meaning heretofore customarily given by the pilchard fishing industry generally in Monterey to that phrase, or to the phrase "load of small fish" or "load of small sardines."

O. E. Sette
Area Coordinator, Area II

Dated November 4, 1943

FISH PRODUCTS REDEFINED IN MPR-421, 422, AND 423

Amendment 4 to MPR-421 (Ceiling Prices of Certain Foods Sold at Wholesale), Amendment 7 to MPR-423 (Ceiling Prices of Certain Foods Sold at Retail in Group 1 and 2 Stores) and Amendment 6 to MPR-422 (Ceiling Prices of Certain Foods Sold at Retail in Group 3 and 4 Stores), issued on November 3, prescribed changes in classification of certain food items effected by those regulations. For the purposes of the regulations the definitions of "processed fish" and "frozen foods" were amended to read as follows:

(8) "Fish, processed" includes, but is not limited to, canned fish, canned seafood, and salted, pickled, smoked, dried or otherwise processed fish, such as fish cakes, roe, clam juice, and oyster puree. Excluded are fresh or frozen fish, fresh or frozen seafood, frozen food products in which fish or seafood are combined with other ingredients, and caviar.

(13) "Frozen foods" means packaged quick-frozen or cold-packed foods sold from refrigerated cabinets or lockers, including, but not limited to all fruits, berries, fruit or berry juices, and mixtures, vegetables, vegetable juices, and mixtures, including mushrooms, dog and cat food not prepared by you for pet food, applesauce, macaroni and spaghetti products, chop suey, gravies, pork-and-beans, soups, food products in which meat, chicken, turkey, fish or seafood are combined with other ingredients, meat stews, and corned beef hash. Excluded are frozen pies and pastries, frozen meat, poultry, fish and seafood, ice cream, sherbet, and frozen confections.

The changes have been made to enlarge the applicability of the orders to cover many new foods with mixed ingredients that have come to be marketed during recent months since the original orders were issued. All three amendments were issued November 3 and became effective November 9, although certain provisions, including the application of the new definitions involving fishery products, became effective November 24.

ODT ORDER ON FREIGHT CAR LOADING REVISED

Climaxing a year of the heaviest carload freight loading in the nation's railroad history, the Office of Defense Transportation on October 23, issued a further revised version of its General Order ODT 18, which requires maximum loading of railroad freight cars.

The order (General Order ODT 18A), which becomes effective November 1, 1943, supersedes General Order ODT 18, Revised, as amended, and also incorporates Special Directions ODT 18A-1, 18A-2, and 18A-3, and General Permit ODT 18A-1, which are being issued concurrently with General Order ODT 18A. Outstanding special directions issued in connection with General Order ODT 18, Revised, as amended, are revoked.

ODT officials pointed out that the new order makes no radical changes in current loading requirements, but that the old order is being amplified to meet changed loading conditions. Among other things, the new order incorporates a section of the old order which provides that, under stated circumstances, not in excess of three consignors may consolidate in a single car separate consignments of carload freight originating at the same point of origin, for shipment to not in excess of three consignees at not in excess of three destinations.

ODT 18A specifies that its provisions are subject to any special direction with respect to the loading of carload lots of specified commodities. Such directions are to be made to eliminate and avoid controversy and misunderstanding as to whether and under what circumstances loading will create a transportation hazard, cause damage to lading, cause injury to persons, or is beyond the refrigerating, heating, or ventilating capacity of a car or cars. Special Directions 18A-1 and 18A-2, issued in conformance with this provision, specify loading requirements for certain perishable and non-perishable commodities. These directions are excerpted, where fishery products are referred to, as follows:

Item 390 (18A-1) Foodstuffs, canned. Shall be loaded to a weight of not less than 65,000 pounds.

" 135 (18A-2) Berries, fish and other seafood, fruits, juices, meat, and vegetables, frozen. Straight or mixed carloads, in any type of container, except berries and cherries in barrels, see Items 95 and 105, shall be loaded to an elevation not lower than 18 inches from the ceiling of the car measured at its side walls.

" 505 (18A-2) Oysters. Shall be loaded to a weight which equals or exceeds the applicable tariff carload minimum weight.

Except for modification through special directions, the provisions of ODT-18A apply to carload transportation of all fishery products.

WPB CERTIFICATIONS SIMPLIFIED IN PR-7

Simplification of certifications on purchase orders and a shortcut in their use was provided by the War Production Board in its November 27 issue of Priorities Regulation No. 7.

This regulation permits use of a standard form of certification instead of most of the different forms required by the various orders and regulations. In addition, paragraph (f) of PR-7 provides a shortcut that permits a seller receiving an order without certification, when he knows the facts which the certification would show, to accept the purchase order and treat it as bearing the proper certification if he places the certification on the order and signs it himself. In so doing, he modifies the statement to read "seller" instead of "buyer."

The regulation contains a list of certifications for which the standard form cannot be substituted, a list of certain certifications which cannot be waived by the seller as explained in paragraph (f), and a list of certifications which may be omitted if a purchase order certification has been furnished previously by the buyer.

EMPLOYMENT IN OYSTER-SHUCKING INDUSTRY STUDIED

Labor losses to shipbuilding and aircraft works of more than 50 percent were found recently in a sampling survey of the oyster-shucking industry, by the Women's Bureau of the United States Department of Labor. Results of a survey conducted among firms operating on the Maurice River in the representative Delaware Bay area of southern New Jersey were reported on November 21. The survey showed that the district had approximately 1,800 men and women laborers in oyster houses before the war and that the total in late 1943 was about 700. Higher wages and better living conditions and working standards in war-factory areas depleted the numbers of workers available to the oyster industry. From 30 to 50 percent of the Maurice River labor force are women.

Shuckers, the report says, are paid 50 cents for each 8-pint measure of oysters and make about $6 a day. Women are employed only as shuckers. Test openers - who sort the oysters for size and quality - are men and are paid five cents extra for each measure. The "skilled" jobs of dipping, skimming, and packing are done by men who are paid at least $50 a week. Shell wheelers and oyster carriers also are men and are paid 75 cents an hour. All shucking houses operate on an 8-hour day, to be worked between 6 or 6:30 a.m. and 5 p.m. Hours of the individual worker are subject to his or her convenience.

A 5-page report on the survey, which lists recommendations for improvement of working and housing conditions, has been prepared by the Women's Bureau. Recommendations in this report are excerpted as follows:

Working conditions—If the work must be done standing, as was stated, the hour schedule should not be lengthened. Present flexibility in hours of homemakers should be maintained.

Plant housekeeping should be improved, especially as to floors, ventilation, lighting.

A separate room, with chairs and tables, should be provided for the use of employees who do not go home for lunch.

A sewerage system with sanitary flush toilets convenient to the work places should be required by law.

Housing conditions—Sanitary drainage is of first importance.

The inferior housing should be condemned and new houses built, convenient to the shuck houses but on higher ground. They should have flush toilets, shower baths, at least hot and cold water, electric lights, and so forth.

The houses at other locations, though on higher ground and better in other ways, also should be brought up to decent standards. (Politics, vice interests, and race prejudice are blamed for the failure of past efforts to improve the housing.)

A social and recreational program for the people should be worked out. Present activities should be given support, past efforts revived.

CANCELLATION OF ARMY CONTRACTS MAKES MORE FISH NETTING AVAILABLE

As a result of the Army cancellation of all outstanding contracts for camouflage netting, the War Production Board on November 5 revoked its September 23 direction to the fish netting industry controlling output of the camouflage material.

At the same time provisions of the direction covering fish netting output for the commercial fishing industry were cancelled, while the requirement that a specified poundage of fish netting be produced for fulfillment of the Treasury Department's Procurement Division contract was modified. The modification requires that enough fish netting be produced in November and December to assure completion of the contracts by December 31. Previously, each producer had to set aside specified percentages of his output for this purpose.

The action was necessitated by the Army contract cancellation, which, in effect, will remove a large part of the industry's facilities from operation on manufacture of camouflage netting. When the directive was originally issued the entire industry output was taken up by outstanding demands for camouflage and fish netting, and control of output through imposition of mandatory production schedule was found to be necessary.

While most of the industries facilities will now be freed for other operations, officials said that material, manpower and machines will be needed to meet large demands for commercial fish netting used by American fishermen. It was pointed out that there are serious shortages of fish netting which must be met and the industry will be called on to meet these shortages. Twines accumulated for the production of camouflage netting are in most cases not adapted for civilian production, the officials stated.

To benefit by the change described above, the Office of the Coordinator of Fisheries suggests that dealers and fishermen place orders immediately for anticipated future needs.

Text of the directive follows:

"Gentlemen:

In view of the modification in the procurement program for camouflage netting, our direction to you under date of September 23, 1943, is revised in the following respects.

1. The requirement in the direction for producing a specified poundage of camouflage netting during the months of November and December, 1943, is revoked.

2. The requirement in said direction that you produce a specified poundage of fish netting suitable for filling your contract or contracts with the United States Treasury Department, Procurement Division, is modified to provide that during November and December you shall produce a minimum poundage of fish netting suitable for completing such contract or contracts by December 31, 1943, this poundage to be reserved to fill said contract or contracts.

3. The requirement in said direction that you produce a minimum average monthly poundage during the months of October, November and December, 1943, of * * * pounds of fish netting to meet the netting requirements of the commercial fishing industry is revoked. The requirement in said direction that at least * * * percent of your excess poundage produced above * * * should consist of camouflage netting meeting United States Army Specification No. T1534 is revoked.

Nothing in this letter shall be deemed to affect in any way any liabilities or penalties previously accrued or incurred under said direction dated September 23, 1943, and except as modified herein said direction shall remain in full force in effect. Your efforts in carrying out the aforesaid direction have been appreciated."

ICE MAKERS SUPPLIES INCREASED TO AA-1 FROM AA-2 BY WPB

The preference rating available to manufacturers of ice to obtain maintenance, repair, and operating supplies has been increased to AA-1 from AA-2, by Amendment No. 1 of CMP Regulation No. 5, the War Production Board announced on November 3.

RADIO COMMUNICATION AND RADIO BROADCASTING COVERED BY WPB ORDER P-133

Radio Communication and Radio Broadcasting have been removed from CMP Regulation No. 5, inasmuch as MRO for these activities is now covered by Order P-133, which deals with them exclusively. This change is contained in Amendment No. 1 to CMP Regulation No. 5, as amended September 13, 1943, according to a WPB announcement November 3.

RESTRICTIONS ON REPAIRS RELAXED BY WPB

Procedures under which persons engaged in the business of making repairs may obtain controlled materials and other materials and parts have been established in a new CMP Regulation No. 9A, the Office of Civilian Requirements announced on November 26. At the same time, an amendment to CMP Regulation No. 9, governing retailers' acquisitions of copper wire, was announced.

The new CMP Regulation No. 9A permits persons operating farm machinery repair shops, blacksmith shops, radio repair shops, upholstery repair shops, and electricians, plumbers, and others engaged in any type of repair work, to buy up to 20 tons of carbon and alloy steel, a total of 500 pounds of copper and copper base alloy brass mill and foundry products, and 200 pounds of aluminum in specified forms and shapes in any calendar quarter. Special provision is made in the regulation to permit refrigeration repairmen, electricians, domestic appliance repairmen, electrical contractors, and radio repairmen to buy $150 worth of copper wire or one-eighth of what they used during 1941 (figured as accurately as possible by dollar volume), whichever is more. The regulation permits repairmen to buy as much other material as they need for maintenance and repair work.

The amendment to CMP Reg. No. 9, eliminates from that regulation provisions under which repairmen were formerly able to obtain copper wire, inasmuch as repairmen will now obtain wire under CMP Reg. No. 9A.

The new regulations will greatly facilitate the procurement of materials and parts for repair of fishing boats and other fishery equipment. To buy materials and parts under this regulation a repairman need only place on his order the certification prescribed in the regulation. This makes his order an authorized controlled material order for controlled materials and extends a preference rating of AA-3 to applicable materials. Note that this permits the repairmen to do work regardless of whether or not the customer has a rating and eliminates the paper work of accumulating customer's MRO's and other ratings and symbols.

Excerpts from CMP Reg. 9A follow:

§ 3175.9a *CMP Regulation 9A*—(a) *What repairmen can buy materials and parts under this regulation.* Anyone in the business of making repairs may buy materials and parts under this regulation. This includes such persons as farm machinery repair shops, blacksmiths shops, electricians, radio repair shops, plumbers, refrigeration repair shops, boiler repair shops, motor rewinders, electrical contractors, automotive repair shops, upholstery repair shops, bicycle repair shops, and carpenters. It also includes repair shops which are owned by the persons for whom the repair work is done if that person can segregate the purchases of his repair shop from his other purchases.

(b) *How much materials a repairman can buy.* Each calendar quarter a repairman may buy, under this regulation, up to 20 tons of carbon and alloy steel, a total of 500 pounds of copper and copper base alloy brass mill and foundry products, and 200 pounds of aluminum, in the forms listed in Schedule I. In addition, refrigeration repairmen, domestic appliance repairmen, electricians, electrical contractors, and radio repairmen may buy $150 worth of copper wire, or one-eighth of what they used in making repairs in 1941 (figured as accurately as possible by dollar value), whichever is more. A repairman may buy as much other material and repair parts as he needs for his maintenance and repair work.

(c) *How to buy materials under this regulation.* (1) When buying materials and parts under this regulation a repairman must put on his order a certification in substantially the following form:

CMP Allotment Symbol V-9; Preference Rating AA-3

The undersigned purchaser certifies, subject to the penalties of section 35 (A) of the United States Criminal Code, to the seller and to the War Production Board, that, to the best of his knowledge and belief, the undersigned is authorized under applicable War Production Board regulations or orders to place this delivery order, to receive the items ordered for the purpose for which ordered, and to use any preference rating or allotment number or symbol which the undersigned has placed on this order.

He must sign the certification himself, or as described in Priorities Regulation No. 7. An order for controlled materials bearing this certification is an authorized controlled material order under all CMP regulations.

(2) If a repairman does repair work for persons who have the right to use a preference rating higher than AA-3 to buy non-controlled materials and parts for their own maintenance, and repair, the repairman may use that rating to buy what he needs to do their work or to replace in inventory what he has already used for that purpose.

(d) *How a repairman can get more controlled materials.* (1) The War Production Board may authorize repairmen who do work primarily of an industrial nature to buy up to 2000 pounds of copper wire and a total of 2000 pounds of copper and copper base alloy brass mill and foundry products, and to use the preference rating AA-3. To get this authority, a repairman must apply to the War Production Board, Reference CMP Regulation No. 9A, Washington (25), D. C., by letter giving information showing what kind of work he is doing; and what kind of customers he has.

(2) If a repairman needs to buy more controlled materials a quarter than he can get under this regulation including what an industrial repairman can get

under paragraph (1), he should fill out and send Form CMP-4B to the War Production Board, Washington (25), D. C. The War Production Board may allot him controlled materials and assign him a preference rating. If he gets an allotment, he may not buy any controlled materials or non-controlled materials or parts under this regulation.

(e) *What kind of work a repairman may do with materials or parts bought under this regulation.* A repairman may use what he buys under this regulation only to do maintenance and repair work. He may not use what he buys to make products, such as repair parts, which he does not expect to use himself in making repairs.

(f) *Restrictions on inventory.* A repairman may not accept delivery of any item of parts or materials bought under this regulation if his inventory of that item of parts or materials is or would by accepting delivery become larger than he needs to continue his repair and maintenance service for a 60-day period, according to his current method of operation. A repairman may not accept delivery of any item of copper wire if his inventory of that item is or would by accepting delivery become more than he needs for a 15-day period. However, if the supply of any item which he has on hand is less than the permitted amount, he may accept delivery of the smallest commercial amount of that item which his distributor normally sells, even if that will increase his supply beyond the amount specified.

(g) *Effect of other orders and regulations.* (1) Repairmen buying and using parts and materials under this regulation are subject to all applicable provisions of the other orders and regulations of the War Production Board as amended from time to time. Attention is specifically called to the provisions of Conservation Order M-9-c and M-9-c-4 which limit the use of copper, Order M-1-i which limits the use of aluminum, Order M-126 which limits the use of steel, and Order L-41 which forbids construction (including wiring and piping) except under certain conditions. Information concerning these orders can be secured from the nearest War Production Board field office.

(2) No item appearing on List A or B of Priorities Regulation No. 3, (such as automotive repair parts) may be bought under this regulation.

(3) Certain orders of the War Production Board require special applications for some materials and parts. An example of this type of order is M-328, Textiles. A repairman will not be able to buy these materials and parts under this regulation. Generally his supplier can tell him if a special application is needed.

(h) *Communications.* Any communications or appeals under this regulation should be made by writing a letter to the War Production Board, Reference CMP Regulation 9A, Washington (25), D. C.

Issued this 25th day of November 1943.

SCHEDULE I

STEEL

Carbon steel (including wrought iron):
- Bars, cold finished.
- Bars, hot rolled.
- Ingots, billets, blooms, slabs, die blocks, tube rounds, skelp, and sheet and tin bar.
- Pipe, including threaded couplings of the types normally supplied on threaded pipe by pipe mills.
- Plates.
- Rails and track accessories.
- Sheets and strip.
- Steel castings.
- Structural shapes and piling.
- Tin plate, terne plate, and tin mill black plate.
- Tubing.
- Wheels, tires, and axles.
- Wire rods, and wire products.

Alloy steel (including stainless):
- Bars, cold finished.
- Bars, hot rolled.
- Ingots, billets, blooms, slabs, die blocks, tube rounds, sheet bar.
- Pipe including threaded couplings of the types normally supplied on threaded pipe by pipe mills.
- Plates.
- Track accessories.
- Sheets and strip.
- Structural shapes.
- Steel castings.
- Tubing.
- Wheel, tires and axles.
- Wire rods, wire, and wire products.

COPPER AND COPPER-BASE ALLOY PRODUCTS

I. *Brass mill products* (for the purpose of this regulation):

Alloy sheet and strip:
- Alloy plate, sheet, and strip (including strip equivalent of ammunition cups and discs).

Forgings, pressings and impact extrusions:
- Forgings and pressings (before machining).
- Impact extrusions.

Castings:
- Cylinder head castings for air-cooled engines.
- Heat treated sand castings, except cylinder heads.
- Non-heat treated sand castings.
- Heat treated permanent mold castings.
- Non-heat treated permanent mold castings.
- Cold-chamber die castings.
- Gooseneck die castings.
- Other castings (including rotor, centrifugal, plaster, etc.).

Shapes, rolled or extruded:
- Rolled structural shapes (angle, channels, zees, tees, etc.).
- Extruded shapes.

Sheet, strip, plate and foil:
- Sheet, strip and plate.
- Foil (0.008" and thinner).

Tubing and tube blooms:
- Tubing.
- Tube blooms (tube redraw stock).

Ingot and powder:
- Powder.
- High-grade ingot.
- Low-grade ingot.

Alloy rods, bars and wire including extruded shapes:
- Alloy rods, bars and wire (including extruded shapes and ammunition slugs).

Alloy seamless tubing and pipe:
- Alloy seamless tubing and pipe.

Brass mill copper products:
- Plate, sheets, and strip.
- Rods, bars, and wire including extruded shapes (not including wire bars and ingot bars, or rod and wire for electrical conduction).
- Tube and pipe.

II. *Wire mill copper products:*
- Wire and cable (bare, insulated, armored, and copper-clad steel) for electrical conduction.

III. *Foundry copper and copper-base alloy products:*
- Castings (before machining).
- Powder (copper or copper-base alloy).

ALUMINUM

Rod, bar, wire and cable:
- Rod and bar.
- Wire (wire covers maximum diameter under ¾" in rounds, ovals, squares, hexagonals, octagonals, and rectangles).
- Cable (electrical transmission only).

Rivets:
- Rivets.

LAKE HERRING RECIPES PUBLISHED

Eighteen various Lake Herring Recipes are described in a new folder of that title issued by Michigan's State College Agricultural Experiment Station cooperating with the Department of Conservation. Prepared in the Sections of Foods and Nutrition and Zoology, the folder includes methods for frying, baking, broiling, deviling, creaming, stuffing, jellying, and pickling this lake fish.

Recipes given in this folder are a preview of the more complete information on the use of lake herring that will be published in Experiment Station Folder 2, which will be ready for distribution about March 1, 1944. These preview recipes have been tested by the Foods and Nutrition Section of the Michigan Agricultural Station and are released now to encourage a widespread use of lake herring during the present fall season while they are available in generous quantities at the market fish counters. Copies may be obtained from Michigan State College at East Lansing or the Michigan Department of Conservation at Lansing.

Marketing Reviews

FISHERIES OF NEW ENGLAND

Beginning November 1, the Service has been informed, dealers in Gloucester discontinued the practice of deducting 5 percent for ice, "buttons", and small-sized fish, when weighing out rosefish.

The Food and Drug Administration has stated that it will not object to the use of the name "red hake" on the labeling of shipments of the fish biologically identified as Urophycis chuss and sometimes designated as "mud hake" and "squirrel hake." Market News reports hereafter will use the term "red hake" for Urophycis chuss.

FISHERIES OF WASHINGTON AND OREGON

With salmon and halibut fishing seasons for 1943 completed, vessels from those fisheries in November were engaging or preparing to engage in other fishing activity, principally shark, otter trawl, and sardine fishing, according to a representative of the Service in the Northwest. Otter trawl receipts in late October and early November were spotty, due to coastal storms and overhaul of vessels. Considerable activity in construction of new vessels was reported.

Prices for soupfin shark carcasses remained high, averaging 18 cents per pound to the fishing vessel and selling in quantity for as high as 23 cents per pound.

PUERTO RICAN FISHING COLONY ESTABLISHED

As an aid to developing the native food resources of Puerto Rico, a fishing colony has been established on Mona Island, 60 miles off the Puerto Rican coast, to tap supplies of fish in this deep offshore area, according to an announcement on November 10, by Secretary of the Interior Harold L. Ickes.

Fish are traditionally one of the most important protein foods in the Puerto Rican diet, but the war has sharply curtailed imports of the staple salt cod and the native fisheries have heretofore been of comparatively little importance.

Under the project sponsored by the Insular Government and carried out with the cooperation of the Interior Department's Fish and Wildlife Service and Division of Territories and Island Possessions, some fifty fishermen are being established on Mona Island to conduct fishing operations in nearby waters.

Exploratory fishing recently completed by the Fish and Wildlife Service showed that the waters around Mona provide somewhat better fishing than the area close to the coast of Puerto Rico. Also, boats based on Mona will have easier access to the important offshore grounds for red snapper, one of the principal species of the area.

The fishing colony will occupy a camp formerly used by the National Youth Administration and will also have the use of the N.Y.A. launch "Esperanza." The Insular Government's exploratory fishing vessel "W. B. Lewis" will transport the fish from Mona to Mayaguez, P. R. The necessary fishing materials and food will be supplied to the fishermen at cost by the Insular Government.

Fresh Fish Trade

EIGHT-MONTH LANDINGS AT BOSTON 42 MILLION POUNDS LESS THAN YEAR AGO

Fishery products landed at the ports of Boston and Gloucester, Mass., and Portland, Maine, during the month of August 1943, totaled 43,273,333 pounds, valued to the fishermen at $2,269,856, according to Current Fishery Statistics No. 85 released by the Fish and Wildlife Service. The August production was approximately equal to the same month a year ago, while the total weighted average price was 5.25 cents per pound as compared with 4.96 cents for August 1942.

The total landings for the first eight months of 1943 amounted to 231,671,477 pounds, representing a decrease of 15 percent compared with the landings during the same period the previous year. The total weighted average price received during the period was 7.13 cents per pound compared with 4.82 cents in 1942. While landings at Gloucester during the first eight months of 1943 were 3 million pounds greater than those of 1942, Boston receipts dropped 42 million pounds.

Landings by Fishing Vessels at Boston and Gloucester, Mass., and Portland, Maine

Item	August 1943		July 1943		August 1942		Eight months ending with-- August 1943		Eight months ending with-- August 1942	
	Pounds	Cents*	Pounds	Cents*	Pounds	Cents*	Pounds	Cents*	Pounds	Cents*
Cod	3,766,539	6.02	2,561,281	7.41	2,017,534	7.53	31,345,408	9.32	37,270,736	5.65
Haddock	7,927,796	6.79	6,492,441	7.74	8,488,836	7.28	69,904,771	9.62	85,710,141	6.35
Hake	453,976	5.72	278,797	5.23	429,792	5.38	2,194,294	7.43	2,004,122	5.13
Pollock	478,935	4.51	334,707	5.12	652,047	5.62	7,603,938	8.32	7,755,315	4.73
Cusk	254,595	5.47	73,700	5.67	213,438	5.11	1,004,087	8.01	1,638,938	5.12
Halibut	9,514	19.30	9,289	19.28	55,631	20.33	148,931	24.16	394,774	18.87
Mackerel	8,864,760	6.16	9,535,518	5.05	7,317,319	5.12	26,126,255	5.74	16,825,791	4.95
Flounders:										
Gray sole	188,788	6.77	194,585	7.39	177,843	5.79	1,720,514	9.20	2,156,001	5.99
Lemon sole	53,205	7.91	131,455	11.54	145,200	14.22	946,511	11.21	1,137,887	9.04
Yellowtail	122,475	4.02	177,595	4.87	849,910	3.58	2,071,764	7.06	3,555,137	3.92
Blackback	69,065	4.97	148,285	7.51	116,875	7.81	957,500	8.28	944,400	5.59
Dab	210,867	4.39	344,763	4.88	248,596	3.80	2,271,560	6.00	2,142,298	4.02
Other	-	-	-	-	30	-	565	-	2,335	-
Swordfish	135,812	30.00	72,728	30.00	58,844	35.71	208,540	30.00	63,487	35.67
Rosefish	15,399,984	3.73	12,548,686	3.69	16,111,704	3.23	65,758,389	4.08	87,868,936	2.88
Tuna	-	-	-	-	692	11.27	-	-	4,042	6.68
Whiting	4,945,005	4.21	6,410,987	4.11	6,223,418	4.41	17,336,902	4.24	20,818,902	4.12
Wolffish	18,137	4.02	21,500	6.45	34,287	4.74	545,515	7.79	905,038	3.97
Scallops (meats)	78,932	30.00	92,914	39.12	52,308	33.79	542,706	48.85	391,085	30.10
Other, fresh	234,948	-	181,740	-	72,169	-	983,327	-	159,888	-
Total	43,273,333	5.25	39,610,965	5.23	43,266,473	4.96	231,671,477	7.13	271,749,253	4.82
By ports:										
Boston	14,468,109	6.44	12,145,906	7.20	17,085,499	6.85	106,397,639	9.26	148,095,345	5.95
Gloucester	26,490,885	4.69	25,073,475	4.39	24,535,199	3.75	111,076,680	5.39	107,961,797	3.50
Portland	2,314,339	4.12	2,391,584	4.03	1,645,775	3.35	14,197,158	4.73	15,692,111	3.18

*Weighted average of prices per pound paid to fishermen.

GULF SHRIMP PRODUCTION MAKES LARGE GAINS IN AUGUST

Production of shrimp at the more important ports in the Gulf States during August, totaling 67,273 barrels, was 338 percent above the previous month and 88 percent above August 1942, according to information furnished by the Service's Market News office in New Orleans. In the first eight months of the year, receipts of shrimp for canning were 12 percent under those of a year earlier, but there was a gain of 53 percent in receipts of shrimp for other uses, making a net gain of 25 percent in total shrimp production for the eight-month period. Production of most of the other important fishery products in this area exhibited a further decline in August.

Production of Fishery Products in the Gulf States*

Item	Unit	August 1943	August 1943 compared with July 1943	August 1943 compared with August 1942	8 months Jan.-Aug. 1943	8 mos. '43 comp. 8 mos. '42	12 months Jan.-Dec. 1942
			Percent	Percent		Percent	
Shrimp:							
For canning	Bbls.	35,619	+9424	+ 59	54,863	-12	187,285
Other	do	31,654	+ 111	+165	129,436	+53	173,051
Total	do	67,273	+ 338	+ 88	184,299	+25	360,336
Oysters:							
For canning	do	-	-	-	504,574	-10	567,206
Other	do	4,321	- 25	+ 6	194,967	+35	244,032
Total	do	4,321	- 25	+ 6	699,541	- 1	811,238
Hard crabs	Lbs.	1,268,000	+ 1	- 28	6,304,000	-38	14,148,000
Soft crabs	Doz.	3,515	- 48	+ 67	24,919	+ 4	25,556
Crab meat, fresh-cooked	Lbs.	149,000	+ 2	- 20	721,000	-30	1,450,000
Salt-water fish	do	364,000	- 25	- 9	3,964,000	+ 6	6,039,000
Fresh-water fish	do	57,000	- 3	- 12	467,000	+24	521,000

*Includes production at more important ports in Alabama, Mississippi, Louisiana, and Texas.

NEW YORK RECEIPTS SHOW GAINS IN SEPTEMBER

Receipts of fresh and frozen fish and shellfish totaling 23,153,000 pounds in the New York salt-water market in September brought the total for the first nine months of the year to 184,635,000 pounds, according to the Service's New York Fishery Market News office. This was an increase of 7 percent over stocks received in the same nine months of 1942. September totals were 8 percent larger than those in August, largely because of much larger receipts of shellfish, particularly oysters and shrimp. Landings by fishing vessels amounted to 2,431,000 pounds or 12 percent of the total receipts.

Receipts of Fresh and Frozen Fishery Products--Salt-water Market, New York City*

Item	September 1943	Sept. compared with Aug. 1943	Sept. compared with Sept. 1942	August 1943	September 1942
Classification:	Pounds	Percent	Percent	Pounds	Pounds
Fish	15,627,000	0	+ 13	15,585,000	13,813,000
Shellfish, etc.	7,526,000	+28	+ 2	5,888,000	7,344,000
Total receipts	23,153,000	+ 8	+ 9	21,473,000	21,157,000
Important Items:					
Butterfish	959,000	+11	+117	867,000	442,000
Cod	1,580,000	+73	+ 66	914,000	953,000
Flounders:					
Blackback	1,091,000	0	- 2	1,090,000	1,110,000
Yellowtail	1,980,000	-17	- 34	2,393,000	3,010,000
Haddock	1,894,000	- 7	+ 48	2,035,000	1,284,000
Halibut	350,000	-36	- 36	549,000	544,000
Mackerel	1,892,000	+20	+ 92	1,581,000	984,000
Scup (porgy)	614,000	-41	+ 30	1,049,000	473,000
Whiting	1,026,000	+27	+ 98	808,000	517,000
Clams, hard	2,989,000	+ 4	+ 37	2,868,000	2,189,000
Lobsters	597,000	+ 6	+ 25	565,000	476,000
Shrimp	1,821,000	+38	+ 19	1,321,000	1,533,000
Arrivals by:					
Fishing vessels	2,431,000	-11	+ 16	2,735,000	2,097,000
Truck, freight, and express	20,723,000	+11	+ 9	18,738,000	19,060,000

*Excluding imports entered at New York City.

SEATTLE RECEIPTS IN AUGUST 25 PERCENT UNDER THE SAME MONTH A YEAR AGO

Receipts of fresh and frozen fishery products in Seattle during August totaled 5,375,000 pounds, according to information furnished by the Service's Fishery Market News office there. This was a decline of 37 percent from the previous month and 25 percent below August 1942. In the first eight months of 1943, receipts totaled 54,899,000 pounds, an increase of 24 percent from the 44,106,000 pounds received in the same period a year earlier. Much of the decline in August was attributed to the large drop in landings of the halibut and shark fleet, which were 83 percent under those for August a year ago. The reduction was partially offset by increased rail shipments from other Pacific Coast ports.

Receipts of Fresh and Frozen Fishery Products at Seattle*

Item	August 1943	August 1943 compared with July 1943	August 1943 compared with Aug. 1942	8 months Jan-Aug 1943	8 mos. 1943 compared 8 mos. 1942	12 months Jan.-Dec. 1942
Classification:	Pounds	Percent	Percent	Pounds	Percent	Pounds
Total fish and shellfish	5,375,000	-37	- 25	54,899,000	+ 24	70,997,000
Important Items:						
Flounders	978,000	-13	+ 27	6,060,000	- 3	7,712,000
Halibut	1,154,000	-60	- 34	19,376,000	+ 41	19,121,000
"Lingcod"	448,000	-68	- 28	7,645,000	+ 50	5,766,000
Rockfishes	148,000	-49	+ 4	2,963,000	+153	1,791,000
Sablefish	396,000	-10	- 14	2,268,000	+ 7	4,307,000
Salmon:						
Chinook or king	730,000	-44	- 55	5,647,000	- 11	9,022,000
Silver or coho	484,000	+55	- 15	1,550,000	- 30	6,166,000
Crabs, hard	114,000	- 5	+124	1,307,000	+ 25	1,334,000
Oysters, Pacific, shucked	105,000	-24	+184	1,334,000	+ 96	1,158,000

*Halibut and shark fleets and receipts from local and all other sources.

CHICAGO RECEIPTS DROP 18 PERCENT IN SEPTEMBER

Receipts of fresh and frozen fishery products in the Chicago wholesale market totaled 7,007,000 pounds in September, according to the Service's Fishery Market News Office in that city. This was a drop of 18 percent from the 8,539,000 pounds received in the previous month. Most of the important fin-fish contributed to the decline while shellfish receipts increased 51 percent because of much heavier arrivals of shrimp. Although receipts declined in September, they continued to lead those of 1942, this month's arrivals being 28 percent above those of September a year earlier. For the first nine months of the year, the gain was 29 percent.

In the first three quarters of 1943, trucks carried 22 percent of the fishery products received in Chicago, rail express, 45 percent; and rail freight, 33 percent. In a similar period in 1942, trucks accounted for 37 percent; rail express, 30 percent; and rail freight, 33 percent of the total receipts.

Receipts of Fresh and Frozen Fishery Products at Chicago

Item	September 1943	September 1943 compared with Aug. 1943	September 1943 compared with Sept. 1942	9 months Jan.-Sept. 1943	9 mos. 1943 compared 9 mos. 1942	12 months Jan.-Dec. 1942
Classification:	Pounds	Percent	Percent	Pounds	Percent	Pounds
Fresh-water fish	3,289,000	- 11	+ 17	31,407,000	+21	35,913,000
Salt-water fish	2,505,000	- 38	+ 45	23,422,000	+50	21,913,000
Shellfish, etc.	1,213,000	+ 51	+ 30	7,368,000	+11	10,342,000
Total receipts	7,007,000	- 18	+ 28	62,196,000	+29	68,167,000
Important Items:						
Carp	343,000	- 14	+ 82	3,280,000	+83	2,594,000
Lake herring	195,000	- 52	+ 95	2,322,000	+25	3,568,000
Lake trout	615,000	- 12	+ 8	5,020,000	+ 8	6,417,000
Suckers	269,000	+ 9	+ 55	1,959,000	+34	1,773,000
Whitefish	304,000	- 34	- 12	4,083,000	+56	3,411,000
Yellow perch	295,000	+ 48	+ 44	1,545,000	-10	2,351,000
Yellow pike	246,000	- 21	+ 18	2,839,000	+69	2,297,000
Halibut	871,000	- 49	+ 10	9,644,000	+48	8,977,000
Rosefish fillets	310,000	+ 32	+118	2,051,000	-31	3,715,000
Shrimp	974,000	+ 48	+ 39	5,355,000	+17	7,119,000
Leading sources:						
Louisiana	685,000	+ 57	+126	3,012,000	+ 3	4,696,000
Massachusetts	1,039,000	+ 9	+ 63	6,610,000	+13	8,013,000
Wisconsin	850,000	- 7	+ 40	6,672,000	+ 6	8,596,000
British Columbia	729,000	- 60	- 11	9,020,000	+30	9,338,000
Domestic total	4,992,000	- 2	+ 40	40,815,000	+24	47,694,000
Imported total	2,014,000	- 41	+ 7	21,381,000	+40	20,473,000
Transported by:						
Truck	1,322,000	- 13	- 31	13,434,000	-24	24,937,000
Express	3,217,000	- 28	+ 45	28,139,000	+92	19,448,000
Freight	2,467,000	- 4	+ 86	20,623,000	+29	23,782,000

GLOUCESTER FISHERMEN ANSWER PRICE FIXING COMPLAINT

Nineteen Gloucester, Mass., fishermen, who either own or are captains of fishing boats operating in the Atlantic Ocean off Massachusetts and adjoining States, filed with the Federal Trade Commission an answer denying that they at any time participated in a combination or conspiracy to fix prices and restrain trade in the interstate sale of fresh fish, as alleged in the Commission's Complaint 5065, the FTC announced November 11. The respondents are alleged to sell their catch principally to dealers in Gloucester, Boston and New Bedford, Mass., who in turn resell to dealers in States other than Massachusetts.

According to the complaint, the respondents since May 1941 have cooperated with each other and with the Atlantic Fishermen's Union of Boston and its members who make up the crews of the fishing boats, and have entered into mutual agreements under which they have fixed prices to dealers, particularly in New Bedford; restricted the quantity of fish to be caught and sold to dealers; restricted the length of time a fishing boat may stay in port to sell fish; refused to allow each other to receive, and dealers to submit radio phone bids on catches of fish before boats are docked; and held meetings with the Union and similar or-

ganizations at which agreements were made to boycott or otherwise to interfere with the usual operation of fishermen who did not observe the practices agreed upon by the respondents.

The respondents aver that a glut of mackerel in June 1941 caused a situation in the New Bedford market where the dealers paid only ¾ of a cent per pound for what fish they wanted and refused to take great quantities which had to be dumped at sea, with the result that the crews made little or nothing and threatened to quit. As a result of this condition, the answer alleges, "the Fishermen's Union evolved a plan to meet the situation and submitted it to some vessel owners and captains. Respondents did not like parts of the plan, but the Union was firm in its stand no vessel could sail unless it agreed to the plan. * * * respondents had no other alternative but to accept the plan or not go fishing. Although the plan was designed to meet the situation brought about by the glut of mackerel, it was unnecessary because the situation cured itself and nothing has ever been heard of the plan since that time."

In formulating its plan the Union, the answer asserts, followed the N.R.A. Supplementary Code of Fair Competition for the Atlantic Mackerel Fishing Industry, approved May 3, 1934.

The respondents asked dismissal of the complaint on the grounds that they did not act in cooperation with each other or with the Union or similar organization and have never entered into any agreements, combinations and conspiracies to restrain trade; and that if the complaint is founded on the plan to cope with the glut of mackerel in June 1941, such plan went out of existence before the end of four weeks and has never been used since.

Hearings will be held in due course.

AMENDMENT 16 TO MPR 418 ISSUED NOVEMBER 3

Fishermen who also perform the functions of primary fish shippers or other types of wholesalers, and who were performing these functions at a regular place of business prior to July 13, 1943, can charge the maximum price allowed the corresponding type of wholesaler, the OPA announced November 4.

This amendment to the regulation controlling the price of fresh fish and seafood was necessary because, with the exception of certain specified co-operatives, fishermen had been restricted by the regulation to the producer's maximum price. July 13, 1943, was the effective date of the fresh fish and seafood regulation.

Two changes were made in the requirements as to invoices. Fishermen's sales no longer require the giving of an invoice to the primary fish shipper or other buyer. In many instances, the fishermen are small operators who make their sales directly from their small boats or on the dock. They are not equipped to handle paper work. OPA felt the shippers and other wholesalers might better provide the first invoices.

In these invoices, OPA emphasized the buyer must state among other things the size, grade and style of dressing of the species of fish. In the case of many species, these factors make substantial differences in the maximum prices. From now on, shippers and other sellers who fail to state this information on their invoices can charge only the lowest maximum allowed for the species involved.

Two other changes also were made in the regulation. Primary fish shippers must label every container of fresh shrimp and prawn, or attach a tag to every container, with the count and net weight of the seafood and the name and address of the shipper. There are different maximum prices for different counts and weights and this provision is necessary to assure compliance. At the same time, it is in line with trade practice in the days before price control.

Filleters and others who fresh process fish will be allowed the actual container costs paid by them when they buy fish to fresh process, these costs not to exceed 3 cents a pound. Fresh processors are charged for containers according to the number of pounds of fish they receive. After they have processed the fish, the poundage is smaller and they have asked to be allowed to convert the container cost. The 3-cent allowance is considered ample for this.

The action was taken through Amdt. No. 16 to MPR 418--Fresh Fish and Seafood. The amendment became effective November 9, 1943. Excerpts follow:

1. Section 2 (a) is amended by inserting after the words "depending on the character of sale." the sentence "Also, a producer who performs the functions of a primary fish shipper wholesaler or other wholesaler at an established place of doing business, and who prior to July 13, 1943, was engaged in performing those functions at an established place of doing business, may sell at the prices provided in Table B, D or E depending on the character of the sale."

2. Section 13 (c) is amended by inserting after the words "as provided in section 7." the sentence "If the statement furnished a purchaser at the time of delivery does not identify the size, grade and style of dressing, the maximum price which may be charged for the fresh fish and seafood involved in the sale is the maximum price for the lowest priced size, grade and style of dressing of the species of fresh fish and seafood sold: Provided, That this paragraph shall not apply to any sales made at prices listed in Table A in section 20."

3. Section 13 (d) is added to read as follows:

(d) Every primary fish shipper wholesaler selling fresh shrimp and/or prawn in containers shall mark in clearly legible numbers and letters on the outside of each container or on a tag attached thereto the count and net weight of the shrimp and/or prawn within the container and the name and address of the shipper.

4. Section 19 is amended by inserting after the words "for which provision is made," the sentence "Any seller who fresh processes fresh fish and seafood which he purchased in containers may add to his selling price for the fresh processed fish as container charge that amount, not exceeding 3¢, which will enable him to recover the full amount of the container charge paid by him when he purchased the fish involved in the fresh processing."

5. The title of Table C in section 20 is amended to read as follows:

TABLE C--MAXIMUM PRICES FOR RETAILER-OWNED COOPERATIVE SALES AND SALES BY WHOLESALERS OTHER THAN PRIMARY FISH SHIPPER WHOLESALERS TO OTHER WHOLESALERS OF FRESH FISH AND SEAFOOD.[15]

AMENDMENT 17 TO MPR 418 ISSUED NOVEMBER 26

The pricing of fresh head-on shrimp and prawn by wholesalers was revised November 26 by the OPA in a manner designed to cut the cost of this seafood to the consumer in New Orleans, where most head-on shrimp and prawn is consumed, and to make it possible for canners in the Louisiana city to buy in competition with canners buying at ports-of-entry.

These changes were made in an amendment to the regulation controlling prices of fresh fish and seafood, which also made several other changes in that regulation--among them one re-establishing a normal differential of 2 cents a pound in favor of bluefin lake herring, weighing one pound or more, caught in Green Bay over ordinary Great Lakes herring. This is a customary differential in normal times. The bluefin herring of this size go almost altogether to processors. The margin allowed a primary fish shipper-wholesaler of head-on shrimp or prawn is lowered by 1⅜ cents a pound on all sizes and a like deduction is made in the margins of all other wholesalers of this seafood. Any margin for a sale by an intermediary wholesaler to other wholesalers is eliminated entirely. The actual cost of transportation, not to exceed in any case $1.50 for a 210-pound barrel, from a port-of-entry to New Orleans by a producer may be charged the buyer and may be passed on by wholesalers of head-on shrimp. This charge, however, must be absorbed by the wholesaler of headless shrimps, who buys head-on, or by the canner or other processor who buys in the New Orleans market. OPA regional or district offices can publish applicable transportation rates between ports-of-entry and New Orleans.

These actions will bring about a decrease of from 2½ to 3 cents a pound to the consumer of head-on shrimp and prawn in New Orleans. They also will bring about a reduction of about one cent a pound of the price of head-on shrimp to the shipper who removes the heads and sells headless shrimp at the maximum prices established for him.

At the same time, the changes mean that the price of head-on shrimp to a New Orleans canner will be raised by the cost of the transportation approximately ¾ of a cent a pound. These canners, a small segment of the industry, have bought at higher prices than those prevailing at the port-of-entry in times when there was no price control. The action allows them to compete equally with others for the purchase of shrimp.

The marketing of head-on shrimp is almost entirely a localized operation confined to shrimp producing centers and customary in the New Orleans market. Rapid deterioration prevents the shipment of head-on shrimp for any distance. The fresh shrimp distributed on a large scale throughout the United States are headless.

Other changes in the fresh fish and seafood regulation clarify or make minor corrections in existing provisions.

These actions were taken through Amendment No. 17 to MPR 418--Fresh Fish and Seafood. The amendment, which became effective December 2, 1943, is excerpted as follows:

1. Section 2 (b) is amended by deleting the words "Where a producer (fisherman), besides producing and bringing his catch to port" and inserting in their place the words "Where a producer, besides bringing fresh fish or seafood to port".

2. Section 3 (a) is amended by deleting the words "A sale by a primary fish shipper wholesaler is a sale by a person who buys fresh fish or seafood from a producer" and inserting in their place the words "A sale by a primary fish shipper wholesaler is a sale by a person who buys and receives fresh fish or seafood from a producer at a port-of-entry or inland".

3. In section 18 the definition "Producer" is amended to read as follows:

"Producer" means the fisherman and those persons allied with him in the catching and landing of fresh fish or seafood, and includes any person who sells or delivers at a port-of-entry or at any other place fresh fish or seafood which he bought and received on a vessel owned or hired by him.

4. In section 20, Tables A, B, C, D, and E, the columns heading "Price in cents per pound" is amended to read "Price per pound" and the "0" sign before the decimal point in each of the prices listed for Schedule I, Item 1 in Tables A, B, C, D, and E, is replaced by a "$" sign.

5. In section 20, Table A, the designation footnote 33 is added to Item Nos. 1, 2, 3, 4, 5, 6, and 7 of Schedule No. 61.

6. In section 20, Table A, the sizes of Item Nos. 1, 2, 3, 4, 5, 6, and 7 of Schedule No. 61 are amended to read respectively as follows:

Under 9 count per #.	9-12 count inclusive per #.	Over 12-15 count inclusive per #.
Over 15-18 count inclusive per #.	Over 18-25 count inclusive per #.	Over 25-39 count inclusive per #.
		Over 39 count inclusive per #.

7. Footnote 31 following Table A in section 20 is amended to read as follows:

31Maximum prices listed apply only to fish caught in Lakes Superior, Michigan, and Huron, and waters tributary thereto but not in Saginaw Bay, except that the maximum prices for Bluefin lake herring, weighing one pound or more in the round and caught in Green Bay, are the prices listed in Schedule No. 63.

8. Footnote 33 is added at the end of Table A in section 20 to read as follows:

33When a producer delivers head-on shrimp from a port of entry to New Orleans, Louisiana, add the actual cost of such transportation, not to exceed $1.50 per barrel (210#) of head-on shrimp, to the maximum prices listed.

9, 10, 12, and 13. In section 20, Tables B, C, D, and E, Item Nos. 1, 2, 3, 4, 5, 6, and 7 of Schedule No. 61 are amended to read as follows:

Sched. No.	Name	Item No.	Style of Dressing	Size (count per lb.)	Price per pound, January through December B	T A B L E* C	D	E
61	Shrimp and prawn	1 24/**	Head-on ..	Under 9	$0.16½	$0.16½	$0.18½	$0.21½
	30/(Table C only)	2 "	" " ..	9 to 12 inc.	.14½	.14½	.16½	.19½
		3 "	" " ..	Over 12 to 15 inc.	.12½	.12½	.14½	.17½
		4 "	" " ..	Over 15 to 18 inc.	.10½	.10½	.12½	.15½
		5 "	" " ..	Over 18 to 25 inc.	.08½	.08½	.11	.13½
		6 "	" " ..	Over 25 to 39 inc.	.07½	.07½	.09½	.12
		7 "	" " ..	Over 39	.05½	.05½	.08	.10½

*TABLE B--MAXIMUM PRICES FOR PRIMARY FISH SHIPPER SALES OF FRESH FISH AND SEAFOOD.
TABLE C--MAXIMUM PRICES FOR RETAILER-OWNED COOPERATIVE SALES AND SALES BY WHOLESALERS OTHER THAN PRIMARY FISH SHIPPER WHOLESALERS TO OTHER WHOLESALERS OF FRESH FISH AND SEAFOOD.
TABLE D--MAXIMUM PRICES FOR CASH AND CARRY SALES OF FRESH FISH AND SEAFOOD.
TABLE E--MAXIMUM PRICES FOR SERVICE AND DELIVERY SALES OF FRESH FISH AND SEAFOOD.

**Added at the end of Table C only to read as follows: For sale of this item by a retailer-owned cooperative, it may add 1½ cents to the maximum prices listed.

AMENDMENT 18 TO MPR 418 ISSUED NOVEMBER 30

Fishermen who are also wholesale distributors of fresh fish and seafood were given on December 1, a clarification of the maximum prices they may charge by the Office of Price Administration in an amendment to MPR 418 issued November 30. OPA also redefined a sale by a primary fish shipper-wholesaler and fixed producers ceiling prices for dressed codfish.

The action makes it clear that a fisherman may receive prices set for primary shipper-wholesalers only under the following conditions: He must sell fresh fish or seafood to other wholesalers or to a retail chain store warehouse from his plant or the established place of business where he handles the fish and has been doing so for most of the year prior to July 13, 1943. Fishermen who have sheds where they package fish and send it to brokers may not charge the primary shipper-wholesaler price because they do not make and have not made sales from their plant or established place of business.

By the terms of the maximum price regulation for fresh fish and seafood before the action, fishermen could receive no more than the maximum set therein for "producers," regardless of the character of the sale or the function performed by the fisherman. Later amendments to the regulation provided certain exceptions by which cooperatives and primary shipper-wholesalers could receive the higher prices set forth in the amendment for other types of sales. This resulted in many "producers" selling fresh fish and seafood at prices listed for primary wholesalers, although they had not performed the wholesaler function immediately prior to July 13, 1943. The action, making specific the conditions under which fishermen or producers may sell at primary shipper-wholesaler prices, corrects the disruption in distribution that was caused when these producers began performing the functions of wholesalers and by-passing the normal channels of distribution. In redefining a sale by a primary fish shipper-wholesaler, OPA made it necessary for such a sale to be made to wholesalers or to a retail chain store warehouse from the established place of business of the primary wholesaler.

Maximum price for sales of dressed codfish by producers are set in line with those already established for producers' sales of round and drawn codfish. The new prices reflect average 1942 prices at this time of year when fish are coming into market. They are fixed for three size classifications: 5 to 10 pounds, 10 to 25 pounds and 25 pounds and up.

Amendment 18 to Maximum Price Regulation No. 418--Fresh Fish and Seafood--makes the foregoing changes, effective December 6, 1943. Excerpts follow:

1. Section 2 (a) is amended to read as follows:

(a) Ex-vessel fish. Table A (Article IV, section 20 (a)) lists the species of fresh fish and seafood (including shellfish and molluscs) for which maximum prices are established by this regulation. The prices are fixed for each month. For each month, there are two columns of prices. The prices in Table A for sales by producers apply irrespective of the

nature of the purchaser and irrespective of whether the fish are sold through an agent of any kind. Nevertheless, a producer who performs the functions of a primary fish shipper-wholesaler or other wholesaler at his established place of doing business, and who for the substantial portion of the year prior to July 13, 1943, was engaged in performing the functions of a primary fish shipper-wholesaler or other wholesaler at his established place of doing business, may sell at the prices provided in Tables B, D or E depending on the character of the sale. The left-hand pricing column is the producer's maximum price at the port of entry for the designated species in bulk, ex-vessel, i.e., in the customary way in which the particular species is landed at that port, and of the customary size, where size is a factor in the price. War risk insurance premiums may be paid in addition to the listed maximum prices for those species of fish and in those localities where such premiums have customarily been paid by purchasers of the fish.

2. Section 3 (a) is amended to read as follows:

(a) Sale by a primary fish shipper-wholesaler. A sale by a primary fish shipper-wholesaler is a sale by a person who buys and receives fresh fish or seafood from a producer at a port of entry or inland and who sells bulk, boxed, barreled or packaged fresh fish or seafood from his established place of doing business to other wholesalers (retailer-owned cooperative, cash and carry, and service and delivery) or to a retail chain store warehouse.

3. In section 20, Table A, Item Nos. 10, 11 and 12 are added to Schedule No. 2 to read as follows:

TABLE A -- MAXIMUM PRICES FOR PRODUCERS OF FRESH FISH AND SEAFOOD

Price in cents per pound for bulk ex-vessel--Boxed prices are 1 cent per pound higher

Schedule No.	Species	Style of dressing	Size	Season			
				Months	Price	Months	Price
2	Codfish	Dressed	25# up	Apr-Sept	8	Oct-Mar	10¾
		"	10-25#	"	8¾	"	11¼
		"	5-10#	"	8	"	10¾

COVERAGE OF MPR-439 ENLARGED SEPTEMBER 21

Issuing Amendment 3 to MPR-439, effective September 21, OPA increased the coverage of this regulation to include the following species:

48. Pilchards (Sardinia caerulea)
49. Whitefish (Coregonus clupeiformis) (Caught in Canadian waters)
50. Lake Trout (Cristivomer mamaycush) (Caught in Canadian waters)
51. Yellow Pike (Yellows or Wall-eyed Pike) (Stizostedion vitreum vitreum) (Caught in Canadian waters)
52. Pickerel (Jacks, Great Northern Pike or Grass Pike) (Esox lucius) (Caught in Canadian waters)
53. Sauger (Sand Pike) (Stizostedion canadense) (Caught in Canadian waters)
54. Yellow Perch (Perca flavescens) (Caught in Canadian waters)
55. Shrimp and Prawn

Section 2 (a) of the regulation was amended by deleting in Item 34 the word "(Salmogrirdnerii)" and inserting in its place "(Salmo gairdnerii)," and by deleting in Item 44 the words "(Pacific Coast)."

RULING MAKES IMPORTED FRESH FISH SUBJECT TO PRICE CEILINGS

Retailers selling fish which they themselves imported must apply their permitted retail mark-up to a cost figure no more than the maximum price which a primary fish shipper could charge them under the regulation controlling fish prices in this country, OPA announced November 2. The ruling covers all the salt-water fish and seafood now under price control, including lake herring, which also is under the regulation controlling the salt-water fish and seafood. The action was taken through Amendment No. 5 to Maximum Price Regulation No. 439—Fresh Fish and Seafood at Retail. The amendment became effective November 6, 1943.

Two things caused the action. Retailers importing fish not under price control at the source of supply and then applying their normal mark-up to their net cost simply are passing on to the consuming public the unrestricted cost of the fish. At the same time, since the primary fish shipper must sell under maximum prices, these retailers are in a position to divert fish which normally would go to the primary fish shippers. The action will tend to strengthen the existing price controls over fish.

Excerpts from Amendment 5 follow:

1. Section 2 (a) is amended by adding the following item:

56. Lake herring (Leucichthys artedi).

2. Section 4 is amended by inserting after the sentence ending with the words "supplier's ceiling price." the following sentence:

To compute the maximum selling price for fresh fish or seafood of any species listed in section 2 which the retailer bought outside of the United States or Alaska or which were delivered to him from outside the United States or Alaska, the retailer shall use as his "net delivered cost" whichever of the following is lower: (1) The "net delivered cost" as computed above or (2) the maximum price for the sale of such fresh fish or seafood by a primary fish shipper-wholesaler as listed in Maximum Price Regulation No. 418, Article IV, section 20, Table B, plus the container price as listed in MPR-418, Article IV, section 19, where a container, as there defined, is used, plus all transportation charges.

Frozen Fish Trade

35½ MILLION POUNDS OF FISHERY PRODUCTS FROZEN DURING AUGUST

Fishery products frozen by domestic freezers during August 1943, totaled 35,621,000 pounds, an increase of approximately 9 percent over the same month the previous year, according to Current Fishery Statistics No. 83, published by the Fish and Wildlife Service. The main items frozen during the month were rosefish, whiting, salmon, and mackerel.

Freezings of Fishery Products in United States Cold-storage Plants

Item	August 1943	August compared with July 1943	August compared with Aug.15 to Sept.15, 1942	August compared with 5-yr.av. Aug.15 to Sept.15	July 1943	Aug. 15 to Sept. 15, 1942	5-yr. av. Aug.15 to Sept.15
	Pounds	Percent	Percent	Percent	Pounds	Pounds	Pounds
Total fish and shellfish	35,621,000	+ 3	+ 25	+ 46	34,438,000	28,532,000	24,328,000
Important items:							
Butterfish	909,000	- 19	+1523	+684	1,126,000	56,000	116,000
Fillets:							
Cod	729,000	- 4	+ 54	+ 69	763,000	472,000	432,000
Rosefish	4,368,000	+ 30	- 2	+ 52	3,356,000	4,442,000	2,874,000
Flounders	1,351,000	*	+ 137	+426	1,353,000	571,000	257,000
Halibut	1,973,000	- 9	+ 22	+ 42	2,161,000	1,612,000	1,392,000
Mackerel	3,089,000	- 25	+ 154	+ 72	4,092,000	1,214,000	1,792,000
Sablefish	680,000	- 16	- 13	+ 14	806,000	779,000	598,000
Salmon	4,169,000	+ 69	- 7	+ 10	2,474,000	4,491,000	3,790,000
Swordfish	801,000	+464	+ 203	+151	142,000	264,000	319,000
Whiting	7,298,000	- 17	+ 28	+ 79	8,769,000	5,680,000	4,072,000
Shrimp	1,065,000	+ 85	- 13	+ 12	575,000	1,225,000	952,000

*A decrease of less than one-half percent.

FROZEN FISH STOCKS ON SEPTEMBER 1 TOTAL 93 MILLION POUNDS

Holdings of fishery products in the United States and Alaska on September 1, 1943, totaled 92,911,000 pounds, representing an increase of 23 percent over those of a month previous, according to Current Fishery Statistics No. 83 published by the Fish and Wildlife Service. Although it is not possible to make an exact comparison with previous years due to the change in the date for reporting cold-storage holdings from the fifteenth to the first of the month, it is estimated that stocks were about 11½ million pounds less than on September 1, 1942.

Holdings of Fishery Products in the United States

Item	Sept. 1, 1943	Sept. 1 compared with Aug. 1, 1943	Sept. 1 compared with Sept. 15, 1942	Sept. 1 compared with 5-yr. av. Sept. 15	August 1, 1943	Sept. 15, 1942	5-yr. av. Sept. 15
	Pounds	Percent	Percent	Percent	Pounds	Pounds	Pounds
Frozen fish and shellfish:							
Total holdings	92,911,000	+23	- 15	+ 1	75,438,000	109,428,000	92,372,000
Important items:							
Butterfish	2,682,000	+55	+473	+219	1,733,000	468,000	842,000
Croakers	2,705,000	+15	- 13	- 9	2,360,000	3,103,000	2,982,000
Fillets:							
Cod	2,616,000	+67	- 32	+ 4	1,565,000	3,848,000	2,519,000
Haddock	2,374,000	+60	- 75	- 74	1,485,000	9,648,000	9,023,000
Rosefish	3,113,000	+40	- 42	- 17	2,221,000	5,358,000	3,767,000
Flounders	2,381,000	+ 8	+ 31	+141	2,208,000	1,819,000	987,000
Halibut	13,228,000	+19	- 6	- 4	11,124,000	14,141,000	13,850,000
Herring, sea	3,207,000	- 6	+236	+164	3,404,000	955,000	1,214,000
Mackerel	7,840,000	+15	- 12	+ 12	6,846,000	8,931,000	7,005,000
Salmon	6,902,000	+89	- 25	- 11	3,651,000	9,170,000	7,789,000
Scup (porgies)	2,903,000	+ 8	+ 41	+176	2,686,000	2,052,000	1,050,000
Whiting	11,400,000	+27	- 24	- 7	8,949,000	15,026,000	12,242,000
Shrimp	2,418,000	+23	- 3	+ 22	1,958,000	2,494,000	1,983,000
Cured fish:							
Herring, cured	19,946,000	*	+ 26	+ 11	19,887,000	15,885,000	17,938,000
Salmon, mild-cured	1,738,000	+14	- 76	- 76	1,530,000	7,134,000	7,114,000

*An increase of less than one-half percent.

BOSTON HOLDINGS REACH 13,800,000 POUNDS ON SEPTEMBER 29

Gaining 10 percent in five weeks, the holdings of fishery products in Boston cold-storage plants totaled 13,810,000 pounds on September 29, according to the Service's Market News office in Boston. This was 23 percent below the 17,876,000 pounds held on September 30, 1942. The most important items in the holdings were mackerel, and sea herring and alewives.

A decline of 5 percent was reported for the five-week period in the holdings of whiting at 13 cold-storage plants in Maine and Massachusetts. A total of 6,440,000 pounds of this species was recorded on September 25. This was 41 percent below the total of September 26, 1942. Whiting on hand was composed of about 74 percent dressed, H & G, fillets, and skuljoes, 26 percent round whiting, and less than 1 percent classed as animal food.

Boston Cold-storage Holdings

Item	Sept. 29, 1943	Sept. 29, 1943 compared with Aug. 25, 1943	Sept. 29, 1943 compared with Sept. 30, 1942	Aug. 25, 1943	Sept. 30, 1942
	Pounds	Percent	Percent	Pounds	Pounds
Total fish and shellfish	13,810,000	+ 10	- 23	12,543,000	17,876,000
Important Items:					
Fillets:					
Cod	406,000	- 7	- 59	437,000	983,000
Flounder	226,000	+ 6	- 28	214,000	312,000
Haddock	615,000	+ 60	- 86	384,000	4,491,000
Rosefish	359,000	+ 34	- 56	268,000	825,000
Flounders and sole	225,000	+ 48	+ 108	152,000	108,000
Herring, sea and alewives	1,575,000	- 8	+1258	1,704,000	116,000
Mackerel	2,762,000	- 2	- 28	2,806,000	3,840,000
Scup (porgy)	217,000	- 8	+ 115	235,000	101,000
Smelt	236,000	+ 2	- 18	232,000	288,000
Swordfish, Native	656,000	+ 58	+ 10	416,000	598,000
Scallops	507,000	+121	+ 88	229,000	269,000
Shrimp	306,000	+166	+ 297	115,000	77,000
Squid	580,000	- 5	+1161	611,000	46,000

NEW YORK COLD-STORAGE PLANTS INCREASE HOLDINGS IN SEPTEMBER

Holdings of frozen fishery products in New York cold-storage warehouses totaled 10,757,000 pounds on October 1, according to the Service's Fishery Market News office in that city. This was an increase of 13 percent over stocks held on September 1 and 18 percent over stocks held one year earlier. The greatest gains from September 1 were made in butterfish, sablefish, salmon, and shrimp. The large gains in shrimp holdings can be attributed to the OPA ceiling prices on fresh shrimp which were considerably below the prices at which shrimp had been selling in the New York market. As compared with last year, there were large increases in buffalo and carp; butterfish; flounders, sole, etc.; sea herring; shad, and shrimp. There were large decreases in halibut and whiting holdings caused, it is believed, mainly by the uncertainty occasioned by OPA ceiling prices on these items.

New York Cold-storage Holdings

Item	Oct. 1, 1943	Oct. 1, 1943 compared with Sept. 1, 1943	Oct. 1, 1943 compared with Oct. 1, 1942	Sept. 1, 1943	Oct. 1, 1942
	Pounds	Percent	Percent	Pounds	Pounds
Total fish and shellfish	10,757,000	+ 13	+ 18	9,535,000	9,119,000
Important Items:					
Butterfish	930,000	+ 45	+237	640,000	276,000
Flounders, Sole, etc.	421,000	+ 1	+ 92	418,000	219,000
Mackerel	908,000	+ 6	- 19	854,000	1,117,000
Sablefish	294,000	+ 63	+ 2	180,000	288,000
Salmon	339,000	+ 86	- 10	182,000	378,000
Scup (porgy)	547,000	- 4	+ 34	570,000	409,000
Shad	450,000	- 3	+126	464,000	199,000
Sturgeon	261,000	+ 20	+ 3	218,000	253,000
Whitefish	465,000	- 7	- 16	500,000	555,000
Whiting	445,000	+ 13	- 52	395,000	933,000
Lobster tails, spiny	115,000	- 9	+ 26	127,000	91,000
Shrimp	1,033,000	+170	+110	383,000	491,000

CHICAGO HOLDINGS RISE 18 PERCENT IN SEPTEMBER

Rising 18 percent over the holdings of the last Thursday in August, the holdings of fishery products in Chicago cold-storage plants totaled 5,324,000 pounds on September 30, according to the Service's Chicago Fishery Market News office. Compared with the corresponding date in 1942, this was an increase of 35 percent. Gains over August 26 stocks were general while those over the stocks a year previous were chiefly in holdings of halibut, mackerel, whiting, and shrimp. The most important items composing the September 30 holdings were these four, and chubs.

Chicago Cold-storage Holdings

Item	Sept. 30, 1943	Sept. 30, 1943 compared with Aug. 26, 1943	Sept. 30, 1943 compared with Sept. 24, 1942	Aug. 26, 1943	Sept. 24, 1942
	Pounds	Percent	Percent	Pounds	Pounds
Total fish and shellfish	5,324,000	+ 18	+ 35	4,520,000	3,948,000
Important Items:					
Blue pike and sauger	133,000	- 15	- 10	157,000	147,000
Chubs	346,000	+ 61	+ 33	215,000	260,000
Lake herring	75,000	- 5	- 41	79,000	127,000
Lake trout	118,000	+ 97	- 22	60,000	152,000
Whitefish	206,000	- 22	- 14	265,000	239,000
Yellow perch	137,000	+174	+191	50,000	47,000
Cod, haddock, hake & pollock Fillets:	179,000	+ 8	+214	165,000	57,000
Cod	210,000	+ 2	+ 47	205,000	143,000
Haddock	184,000	+ 96	- 7	94,000	197,000
Rosefish	223,000	+ 54	+ 1	145,000	220,000
Halibut	677,000	+ 17	+ 87	581,000	363,000
Mackerel	352,000	+ 44	+518	245,000	57,000
Mullet	124,000	+ 68	-	74,000	-
Whiting	477,000	+ 5	+294	455,000	121,000
Shrimp	414,000	+ 10	+133	376,000	178,000

CANADIAN PLANTS FREEZE 10 MILLION POUNDS OF FRESH FISH IN SEPTEMBER

Canadian cold-storage plants froze 9,967,000 pounds of fresh fish during September 1943, an increase of 23 percent over the same month the previous year, according to preliminary data released by the Dominion Bureau of Statistics. The main items frozen during the month were cod, salmon, and sea herring.

Freezings of Fishery Products in Canadian Cold-storage Plants

Item	Sept. 1943	Sept. compared with Aug. 1943	Sept. compared with Sept. 1942	August 1943	Sept. 1942
	Pounds	Percent	Percent	Pounds	Pounds
Frozen fresh fish					
Total freezings	9,967,000	- 24	+ 23	13,146,000	8,124,000
Important items:					
Cod:					
Whole	591,000	- 59	*	1,436,000	590,000
Fillets	4,179,000	+ 43	+ 97	2,920,000	2,126,000
Haddock:					
Whole	94,000	- 60	+1075	234,000	8,000
Fillets	115,000	- 23	- 5	150,000	121,000
Salmon	2,179,000	+ 18	+ 7	1,843,000	2,038,000
Halibut	253,000	- 63	- 72	683,000	909,000
Sea herring	1,233,000	- 66	+ 86	3,655,000	664,000
Mackerel	91,000	- 81	- 75	471,000	361,000
Frozen smoked fish					
Total freezings	649,000	- 23	- 4	847,000	677,000
Important items:					
Fillets; cod, haddock, etc.	257,000	+107	- 41	124,000	432,000
Sea herring kippers	373,000	- 47	+ 95	699,000	191,000

*An increase of less than one-half percent.

CANADIAN HOLDINGS ON OCTOBER 1 TOTAL 33 MILLION POUNDS

Holdings of frozen fresh fish in Canadian cold-storage plants on October 1, 1943, amounted to 32,725,000 pounds, a decrease of 4 percent compared with October 1, 1942, according to a preliminary report furnished by the Dominion Bureau of Statistics. The main items held in Canadian freezers on October 1 were cod, salmon, sea herring, and halibut. These items accounted for 74 percent of the total stocks of frozen fresh fish.

Canadian Cold-storage Holdings

Item	Oct. 1, 1943	October 1 compared with Sept. 1, 1943	October 1 compared with Oct. 1, 1942	Sept. 1, 1943	Oct. 1, 1942
	Pounds	Percent	Percent	Pounds	Pounds
Frozen fresh fish					
Total holdings	32,725,000	- 5	- 4	34,535,000	34,233,000
Important items:					
Cod:					
Whole	3,091,000	+ 6	+ 66	2,922,000	1,863,000
Fillets	4,511,000	-16	+ 63	5,396,000	2,766,000
Haddock:					
Whole	762,000	-11	+266	856,000	208,000
Fillets	346,000	-34	- 29	522,000	486,000
Salmon	3,844,000	+54	*	2,491,000	3,845,000
Sea herring	8,447,000	-13	- 18	9,763,000	10,248,000
Halibut	4,441,000	-11	- 40	4,972,000	7,413,000
Mackerel	1,220,000	-23	- 26	1,589,000	1,640,000
Whitefish	1,614,000	- 7	+ 6	1,744,000	1,528,000
Frozen smoked fish					
Total holdings	1,881,000	- 4	- 3	1,958,000	1,949,000
Important items:					
Finnan haddie	82,000	-25	- 8	109,000	89,000
Fillets; cod, haddock, etc.	625,000	- 4	- 32	649,000	920,000
Sea herring kippers	1,087,000	- 1	+ 26	1,098,000	863,000

*A decrease of less than one-half percent.

SUGGESTIONS MADE FOR EFFICIENT USE OF FREEZERS

Ways of coping with the heavy demand on freezer space, particularly for meats, which will exist during the next four or five months were discussed by the Refrigerated Warehousing Industry Advisory Committee of the Food Distribution Administration at a recent meeting in Chicago, the Department of Agriculture announced on November 25. To meet the demand, the committee recommended that, wherever labor and other conditions made it feasible, cold-storage warehouse operators; (1) pile stored commodities higher in freezer rooms; (2) where possible operate "cooler rooms" (which ordinarily lower the temperature only to about 30 degrees F.) as freezer rooms by running the refrigerating machines faster; and (3) convert some existing cooler space into freezer space by installing additional insulation and refrigerating machines. In discussing means of securing materials and labor, FDA officials said the securing of labor was now the more difficult of the two problems.

FROZEN SHRIMP PRICES REVISED IN AMENDMENT 7 TO MPR 364

Specific cents-per-pound maximum prices for sales of frozen shrimp and prawn at the processor level were revised November 3 by the OPA in line with the prices recently established for fresh shrimp and prawn. This action was taken through Amdt. No. 7 to MPR 364--Frozen Fish and Seafood. The amendment, which gives also new legal definitions of five terms common in the trade, became effective November 8, 1943.

While there are several slight price changes over or under prices which have been in effect on individual shrimp or prawn items, the various increases in prices are offset by an equivalent number of decreases--so that there should be no effect on the general price level of frozen shrimp and prawn when this seafood reaches the ultimate consumer under fixed wholesale and retail mark-ups. For example, the maximum price set for frozen headless shrimp and prawn, with a count of 21 to 25 to the pound, is raised from 27 to 28 cents a pound, and the maximum price for frozen peeled and veined shrimp and prawn, with a count of 20 to 27 to the pound, is raised from 37½ to 40½ cents a pound. On the other hand, the price for frozen headless shrimp and prawn, with a count of 66 or more to the pound, is lowered from 19 to 17½ cents a pound, and the price set for frozen peeled shrimp and prawn, with a count of 31 or more to the pound, is lowered from 24½ cents a pound to 22½ cents a pound.

For the first time, uniform ceiling prices are established for frozen head-on shrimp. These customarily had not been sold to any extent. They have entered the market to some extent, however, because a minority of dealers sought to sell head-on instead of headless shrimp at maximum prices listed for frozen shrimp and prawn. The prices set for head-on sales are sufficiently below these for the usual, headless shrimp to cut off the benefit which the minority had achieved by its unusual trade practice.

Amendment 7 is excerpted as follows:

1. In section 12, after the definition of "cellophane wrapped" and before the definition of "Cry-o-vac wrapped" the following definition is inserted:

"Count," as applied to shrimp and prawn, means the number of processed shrimp or prawn to the pound.

2. In section 12, after the definition of "Gutted" and before the definition of "Individually frozen" the following definition is inserted:

"Headless" means shrimp and/or prawn from which the head has been removed.

3. In section 12, after the definition of "Headless" and before the definition of "Individually frozen" the following definition is inserted:

"Headless and veined" means shrimp and/or prawn from which the head and alimentary canal (sand vein) have been removed.

4. In section 12, after the definition of "Headless and veined" and before the definition of "Individually frozen" the following definition is inserted:

"Head-on" means shrimp and/or prawn as it comes from the water.

5. In section 12, after the definition of "Parchment wrapped" and before the definition of "Peeled and veined" the following definition is inserted:

"Peeled" means shrimp and/or prawn from which the head and shell have been removed.

6. In section 14, Schedule No. 54 is amended to read as follows:

Sched. No.	Name	Item No.	Style of processing	Size (Count)	Base price per pound
54	Shrimp and prawn 1/	1	Head-on	Under 9	.20
		2	Head-on	9 to 12	.18
		3	Head-on	12 to 15	.16
		4	Head-on	15 to 18	.14
		5	Head-on	18 to 25	.12½
		6	Head-on	26 to 39	.11
		7	Head-on	40 and over	.09½
		8	Headless	Under 15	.36
		9	Headless	15 to 20	.31½
		10	Headless	21 to 25	.28
		11	Headless	26 to 30	.24½
		12	Headless	31 to 42	.22
		13	Headless	43 to 65	.20
		14	Headless	66 and over	.17½
		15	Peeled	Under 18	.44½
		16	Peeled	18 to 25	.39½
		17	Peeled	26 to 31	.35
		18	Peeled	32 to 37	.31
		19	Peeled	38 to 51	.28
		20	Peeled	52 to 80	.25
		21	Peeled	81 and over	.22
		22	Peeled and veined	Under 20	.51½
		23	Peeled and veined	20 to 27	.45
		24	Peeled and veined	28 to 33	.40½
		25	Peeled and veined	34 to 40	.36
		26	Peeled and veined	41 to 56	.33
		27	Peeled and veined	57 to 86	.29½
		28	Peeled and veined	87 and over	.26½
		29	Headless and veined	Under 16	.39½
		30	Headless and veined	16 to 21	.35
		31	Headless and veined	22 to 27	.31
		32	Headless and veined	28 to 32	.27½
		33	Headless and veined	33 to 45	.25
		34	Headless and veined	46 to 69	.22½
		35	Headless and veined	70 and over	.20

AMENDMENT 8 TO MPR-364 ISSUED ON NOVEMBER 15

Specific cents-per-pound maximum prices were established November 16 by the OPA for processor sales of frozen lake herring. They maintain prevailing prices determinated at the March 1942, base level of processor prices for this commodity and are in line with the specific cents-per-pound ceilings established recently for fresh lake herring.

At the same time, OPA amended the regulation controlling prices of frozen fish to include a new invoice provision. This requires sellers of frozen fish and seafood to furnish each buyer with a written statement setting forth the date, name and address of the buyer and seller, the species, quantity, sizes and grades of fish sold, the styles of processing these species and the prices charged for the frozen fish. The invoice must also list container differentials, if any, and allowable transportation costs, if any.

If the statement furnished to the buyer does not identify the size, grade and style of dressing, the maximum charge allowed will be that for the lowest priced size, grade and style. This provision is simply a repetition of another recently inserted into the regulation controlling the prices of fresh fish and seafood.

One more provision was inserted into the frozen fish and seafood regulation: No importer of certain species of fish and seafood frozen outside the continental United States before September 1, 1943, or October 1, 1943, depending on the species, can sell that frozen

fish at prices higher than those applicable to the species before October 20, 1943, the effective date of the amendment setting higher winter prices on the fish.

The action was taken through Amendment No. 8 to MPR 364--Frozen Fish and Seafood. The amendment became effective November 20, 1943. Excerpts from Amendment 8 follow:

1. Section 7 (e) is added to read as follows:

(e) Every person making a sale of any frozen fish or seafood subject to this regulation shall furnish to the purchaser at the time of delivery a written statement setting forth the date; the names and addresses of the buyer and seller; the species sold; the quantity, sizes, grades, and styles of processing of such species, and the prices charged therefor, a separate statement of the container differentials, if any, and a separate statement of allowable transportation costs, if any. If the statement furnished a purchaser at the time of delivery does not identify the size, grade and style of dressing, the maximum price which may be charged for the species of frozen fish and seafood involved in the sale is the maximum price for the lowest priced size, grade and style of processing of that species of frozen fish and seafood.

2. In the table of base prices in section 14, Schedule Nos. 68 and 69 are added to read as follows:

Sched. No.	Name	Item No.	Style of processing	Size	Base price per pound
68	Lake herring . . . . . (Leucichthys artedi) 5/	1	Round	All sizes	.07½
		2	Gutted	All sizes	.09½
		3	Headed and gutted	All sizes	.11
		4	Headed, gutted and scaled . .	All sizes	.12
		5	Fillets	All sizes	.17½
		6	Boned	All sizes	.17½
69	Lake herring--caught in Saginaw Bay (Leucichthys artedi).	1	Round	All sizes	.09½
		2	Gutted	All sizes	.12
		3	Headed and gutted	All sizes	.11
		4	Headed, gutted and scaled . .	All sizes	.12
		5	Fillets	All sizes	.17½
		6	Boned	All sizes	.17½

3. Footnote 3 following the table of base prices in section 14 is amended to read as follows:

3/No processor shall sell any fish of this species and style at the prices listed until he shall have sold at or below the prices applicable to this item before October 20, 1943, an amount equal to that part of his October 20, 1943, inventory of that species and style which he froze before September 1, 1943. No importer shall sell any fish of this species and style frozen before September 1, 1943 outside any of the forty-eight states of the United States and the District of Columbia at prices higher than those applicable to this item before October 20, 1943.

4. Footnote 4 following the table of base prices in section 14 is amended to read as follows:

4/No processor shall sell any fish of this species and style at the prices listed until he shall have sold at or below the prices applicable to this item before October 20, 1943, an amount equal to that part of his October 20, 1943 inventory of that species and style which he froze before October 1, 1943. No importer shall sell any fish of this species and style frozen before October 1, 1943 outside any of the forty-eight states of the United States and the District of Columbia at prices higher than those applicable to this item before October 20, 1943.

5. Footnote 5 is added at the end of the table of base prices in section 14 to read as follows:

5/The maximum prices listed for this species of fish apply only to fish caught in Lake Superior, Lake Michigan, Lake Huron, and waters tributary thereto, except Saginaw Bay.

Canned and Cured Fish Trade

SHRIMP PACK 3 PERCENT UNDER PREVIOUS SEASON THROUGH SEPTEMBER

In the three-month period ending October 2, canners in the South Atlantic and Gulf area packed 227,845 standard cases of shrimp, according to the Service's Fishery Market News office in New Orleans. This was 3 percent under the 233,759 cases packed in the same period a year earlier and 28 percent below the 5-year average for this period. There were slightly over 19 million pounds of raw shrimp received at the 38 canneries operating under the Seafood Inspection Service of the U. S. Food and Drug Administration.

Wet and Dry Pack Shrimp in all Sizes in Tin and Glass--Standard Cases*

MONTH			SEASON		
1943	1943	1942	1943-44	1942-43	5-yr. average
Aug. 29-Oct. 2	Aug. 8-Aug. 28	Aug. 30-Oct. 3	July 1-Oct. 2	July 1-Oct. 3	July 1-Sept.30
121,223	101,986	153,056	227,845	233,759	314,588

* All figures on basis of new standard case--48 No. 1 cans with 7 oz. per can in the wet pack and 6½ oz. per can in the dry pack.

Canned shrimp quotations for usual wholesale quantities in plain No. 1 standard tins, f.o.b. point of production, were reported by Gulf Coast packers as follows:

Canned Shrimp Prices--Per Dozen Tins

Item	October 1, 1943*		October 1, 1942*	
	Wet Pack	Dry Pack	Wet Pack	Dry Pack
Small	$2.70	$2.80	$2.33 - 2.76	$2.69 - 2.75
Medium	2.80	2.90	2.57 - 2.82	2.80 - 2.91
Large	2.95	3.05	2.70 - 2.94	2.90 - 3.04
Jumbo	3.05	3.15	2.82 - 3.19	3.05 - 3.29

* 7 oz. net weight for wet pack and 6½ oz. net weight for dry pack.

Note: Maximum prices were established by OPA in MPR-311, effective February 2, 1943.

EIGHT-MONTH TUNA AND MACKEREL PACKS ABOVE 1942

The August pack of tuna by California canners was 29 percent greater than that of the same month a year ago, according to information released by the California Division of Fish and Game. The August pack totaled 538,715 standard cases and consisted mainly of albacore and tuna flakes. The total pack for the first eight months of 1943 was 1,586,009 cases, 17 percent greater than that for the same period of 1942.

The production of canned mackerel during August amounted to 43,828 standard cases as compared with 952 cases the same month a year ago. The eight-month pack of mackerel, 140,092 cases, was 12 percent greater than in 1942.

California Pack of Tuna and Mackerel--Standard Cases1/

Item	August 1943	July 1943	August 1942	Eight months ending with August 1943	Eight months ending with August 1942
	Cases	Cases	Cases	Cases	Cases
Tuna:					
Albacore	237,518	92,706	98,682	333,080	139,413
Bonito	16,241	2,164	7,389	24,389	19,049
Bluefin	26,215	29,729	39,670	126,617	261,536
Striped	62,549	43,414	115,132	212,448	229,546
Yellowfin	67,737	61,348	122,417	463,733	567,645
Yellowtail	7,671	14,300	1,748	54,518	35,036
Flakes	117,064	87,373	34,140	358,713	92,049
Tonno style	3,720	2,952	-	12,511	16,645
Total	538,715	333,984	419,178	1,586,009	1,360,919
Mackerel	43,828	465	952	140,092	124,753

1/ Standard cases of tuna represent cases of 48 7-ounce cans, while those of mackerel represent cases of 48 1-pound cans.

CALIFORNIA SARDINE PACK ABOVE LAST YEAR FOR FIRST TWO MONTHS OF SEASON

From August 1 to October 2 of the current season, there were 856,231 standard cases of California sardines packed, 11 percent more than a similar period a year earlier, according to information furnished by the California Sardine Products Institute and the California Division of Fish and Game. In the five weeks ending October 2, the case pack was 2 percent below that of a year ago but for the first two months of the 1943-44 season all phases of production were up. The increase in landings amounted to 23 percent, and production of meal and oil was 17 and 23 percent higher, respectively, than in the 1942-43 season.

California Sardine Landings, Canned Pack and Byproducts

Item	Unit	MONTH 1943 Aug. 29-Oct. 2	MONTH 1943 Aug. 1-28	MONTH 1942 Aug. 28-Oct. 1	SEASON 1943-44 Aug. 1-Oct. 2	SEASON 1942-43 Aug. 1-Oct. 1
Landings	Tons	136,847	41,899	95,863	178,746	145,307
Canned	1 lb. ovals-48 per case	299,200	146,452	303,235	445,652	377,197
	1 lb. talls-48 per case	251,091	87,762	234,246	338,853	308,962
	½ lb. fillet-48 per case	1,585	9,850	25,722	11,435	35,908
	¼ lb. round-96 per case	26,276	11,482	20,044	37,758	23,443
	5 oz.-100 per case	3,314	3,682	35,151	6,996	46,543
	Unclassified	13,456	10,240	11,526	23,696	13,055
	TOTAL, Std. 1 lb.-48 per case	592,972	263,258	604,525	856,231	770,910
		September	August	September	Sept. 30	Sept. 30
Meal	Tons	18,955	6,797	11,953	25,752	21,967
Oil	Gallons	4,963,271	1,590,520	2,878,332	6,553,541	5,301,713

OPA DEFINES "DELIVERY" IN CANNED FISH SALES TO GOVERNMENT

To clear up confusion in the trade as to what constitutes "delivery" in sales to Government procurement agencies, for purposes of a 10-day cash discount of 1½ percent, the Office of Price Administration on November 16, defined that word in amendments to regulations controlling the prices of canned fish.

OPA previously had ruled that maximum prices to Government procurement agencies were 97½ percent of those established for processors' sales into civilian distributive channels. An additional 1½ percent could be deducted, as is normal, for payment within 10 days of delivery. The confusion had arisen around this point. OPA ruled on November 16 that "delivery" in this case meant the date upon which a properly authenticated claim is presented to the designated office of the Government procurement agency involved.

This action was taken through Amdt. 1 to SO 75; Amdt. 3 to MPR 184—Sales by Canners of Maine Sardines; and Amdt. 2 to MPR 396—Sales by Canners of Atlantic Sea Herring and Alewives, all of which became effective November 22, 1943.

CANNED SALMON SPECIFICATIONS AMENDED BY FDA

The Food Distribution Administration's specifications covering canned salmon were amended on November 12, in Amendment No. 3 to SCP-1436—Canned Alaska Salmon—(Fishery Market News, Je 54 and O 63) and Amendment No. 2 to SCP-1483—Canned Salmon - Continental United States (FMN, My 30, Je 58, Jl 40), to include the following additional specification:

"No. 2 Cohoe Salmon shall be Canned Cohoe Salmon meeting all the requirements for this species contained in Federal Specification No. PP-S-31A, Sections B through F, inclusive, except that the color may be dull, oil may be negligib , texture may be somewhat soft, may be watermarked, and odor and flavor may be typical of is species for the late run."

The FDA will consider requests to amend existing canned salmon contracts to accept delivery of 48/1s Tall No. 2 Cohoe Salmon at 60 cents a case less, and 48/½ No. 2 Cohoes at 42 cents a case less than the price set forth in contracts now in effect.

FISH TRADE POINT VALUES UNCHANGED IN NOVEMBER

Official Consumer Point Value Table No. 8 for Meat, Fats, Fish and Dairy Products, issued by the OPA on November 3 to cover purchases during November, shows no change for fishery items from the values in effect during October. (Fishery Market News, Oct., p. 70).

SHORT CUTS OF CANNED PILCHARDS REQUESTED BY THE FDA

The Food Distribution Administration, Washington 25, D. C., stated on November 10, in Announcement No. FSC-1548—Canned Pilchards, Supplement No. 1--that a limited quantity of short cuts of canned pilchards packed in No. 300 (300x407) cans in accordance with the specifications of Amendment No. 1 to Offer of Sale Form SCP-1548, will be accepted for delivery on contracts covering the 1943-44 season's production. Canners who desire to supply short cuts of pilchards to FSCC must inform FDA, not later than November 24, 1943, the quantity of this type pack they would like to deliver. In accepting quantities offered, FDA will give consideration to the total quantity and price differentials offered.

Canners interested in offering a quantity of short cuts of pilchards should submit a request for amendment to existing contracts in the following form:

"We, _____ hereby request that our Contract FSC(F)_____be amended to accept not to exceed_____cases 48/300 Canned Short Cut Pilchards, in accordance with Amendment No. 1 to Offer of Sale Form SCP-1548, at_____a case (48/300) less than the price set forth in Section 2, paragraph (a), of Offer of Sale Form SCP-1548, Canned Pilchards."

If the request is approved, the contract will be amended by Amendment No. 1 to Offer of Sale Form SCP-1548, Canned Pilchards, to provide for the delivery of this special pack of canned pilchards. Offer of Sale Form SCP-1548, Amendment 1, follows:

Effective immediately, Offer of Sale Form SCP-1548 is amended as follows:

Section 2, PRICES, paragraph (a) is amended to provide that the price for canned Short Cuts of Pilchards shall be_____a case less than the price set forth in paragraph (a) of Section 2, the discount provisions of said paragraph (a) to apply to the price herein set for canned Short Cuts of Pilchards.

Section 4, SPECIFICATIONS, is amended to insert the following specifications:

"Short Cuts of Pilchards"

Fish shall be firm, of good appearance, well cleaned and practically unbroken. Fish shall not be cut shorter than fish usually packed in a 5 oz. can and cans shall contain not more than 14 pieces of fish. Fish may be packed at random in the can. Cans shall be packed as full of fish as practicable and shall contain not less than 15 oz. net weight. Fish shall be packed, natural style, in No. 300 (300x407) cans."

Section 6, PACKAGING AND MARKING, is amended to provide that when Short Cuts of Pilchards are delivered, cases shall be plainly marked "Short Cuts of Pilchards."

FDA ALTERS CAN SPECIFICATIONS FOR PILCHARDS IN TOMATO SAUCE

Tests recently concluded indicate that #1 oval cans manufactured from 1.25 hot dipped plate are not satisfactory for their use in packing Pilchards in tomato sauce, unless the cans are inside enameled, the FDA announced November 22. For this reason, the canned pilchard industry was requested to use inside enameled oval can bodies on all delivery of Canned Pilchards to the Federal Surplus Commodities Corporation as soon as such cans could be secured. The FSCC would reimburse the packer for the actual difference between the cost of plain oval can bodies and inside enameled can bodies. Each canner was requested to file immediately with FSCC at Washington, D. C., a request as set forth in Amendment No. 2 to Offer of Sale

Form SCP-1548. This amendment when accepted by FSCC, will become an amendment to the canner's contract. Excerpts from amendment No. 2 follow:

To insert in Section 2, Offer of Sale Form SCP-1548, Canned Pilchards, PRICES:

"If bodies of #1 oval cans manufactured from 1.25 hot dipped plate are inside enameled, the applicable price determined, pursuant to (a) above, shall be increased at the following appropriate rate:"

48/1 Oval $0.06 per case

FDA REQUESTS OFFERS OF SALTED AND PICKLED PILCHARDS

The Food Distribution Administration announced on November 15, that offers of Brine Salted Fish (Pilchards), on Form SCP-1639, might be submitted at any time prior to January 1, 1944, to the Special Commodities Branch, Food Distribution Administration, Washington 25, D. C., in an original and four (4) completely executed copies. Notice of acceptance would be given at Washington, D. C., within fifteen (15) days after the date of execution of the offer.

Consideration would be given to change in specifications to provide for not more than 10 fish per pound if such change was made on the Offer of Sale Form SCP-1639, Section 3a. The change or insertion should be initialed by the signer of the offer of sale. Terms and conditions of sale listed on the offer forms are excerpted as follows:

SPECIFICATIONS: Fish shall be firm, of good appearance, with practically no broken or mashed fish. Heads shall be removed and fish shall be drawn to a reasonable degree. Fish shall be hard-cured (thoroughly struck or cured in saturated brine) before packing in barrels. Fish shall be hand packed, and shall average not more than seven per pound after salting. In packing in the barrels fish shall be well salted and barrels shall be filled with saturated brine. All fish delivered hereunder shall conform in every applicable respect to the requirements of the Federal Food, Drug and Cosmetic Act as amended and of regulations pursuant thereto.

PACKAGING: Fish shall be packed in new, tight, half barrels, iron hooped, paraffine lined, meeting Federal Specifications FSC-1742-C. Minimum net contents of fish 125 pounds.

Marking: Barrels will be marked to show the commodity, net contents, name of seller, contract number, a legend which may be prescribed by FSCC, and marked XX with figures at least 2 inches in height on one end and at least one place on side of barrel.

INSPECTION: Seller agrees that inspection of the fish will be made prior to delivery to FSCC by the Food Distribution Administration of the War Food Administration or its designee. The cost of such inspection, including furnishing samples and issuing certificates of inspection, will be borne by the seller.

Byproducts Trade

LIMITATIONS ON USE OF FISH OILS CHANGED NOVEMBER 1

The War Food Administration has prescribed new quotas and quota periods for the use of fish oils, and has made several changes in the fish oils limitation order (Food Distribution Order No. 60) to permit a better direction of this raw material to essential uses. The action was taken by amendment to FDO 60, effective November 1.

The amended order, which now includes Alaska seal and rosefish oils, permits the unlimited use of fish oils (or their derivatives) in alkyd resins, metallic soaps and rubber compounding, and permits the unlimited use of Alaska herring and Alaska seal oils in the manufacture of natural leather. There also is no restriction in the use of fish oils (ex-

cept Alaska seal) in the manufacture of lubricants and metal working compounds, other than core oil. Their use in the manufacture of core oils, printing inks, and for all purposes not included in the amended order, must be specifically authorized by the Director of Food Distribution.

Other users of fish oil have been assigned quotas as follows, for the twelve-month period beginning October 1, 1943:

(1) Packers of canned salmon--100 percent of quantity used in 1942.

(2) Manufacturers of vitamin feeding oils, medicinals or pharmaceuticals, natural leather, terne plating, galvanizing, hot dip tinning, caulking compounds and putties--100 percent of the quantity used in the corresponding calendar quarter of 1942.

(3) Manufacturers of shortening, water soluble soap, linoleum, felt base floor covering, oil cloth and coated fabrics--60 percent of the quantity used in 1942. Alaska herring and Alaska seal oils are not permitted for these purposes, however.

(4) Manufacturers of paints, varnishes, lacquers, and other protective coatings--60 percent of the quantity used in the corresponding calendar quarter of 1942.

The original order permitted the unlimited use of fish oils in canned salmon and most of the products in group (2). Their use in the products of groups (3) and (4) was limited to 40 percent of the average quantity used in 1940 and 1941.

The term "fish oil" has been defined in the amended order as all such oil whether crude, refined, pressed, sulphonated, or otherwise processed, and all its byproducts and derivatives (except pitch), including foots, stearine, and fatty acids; and the "fish oil" content of any other product.

The amended order permits manufacturers who use not more than 1,000 pounds of fish oil per quarter to operate without restriction, but this exception does not apply to the use of these oils by a feed manufacturer, or to the use of Alaska seal oil for any purpose other than in natural leather.

A provision of the original order which exempted all fish oils produced prior to June 1, or processed prior to July 1, has been eliminated from the amended order. The order, therefore, covers all stocks on hand, regardless of when produced.

Manufacturers desiring to use fish oils for purposes not covered by the order, or quantities in excess of quotas, may apply for allocation on Form FDA-478 to the Fats and Oils Branch, Food Distribution Administration, Washington 25, D. C., Ref. FDO-60.

Manufacturers using 6,000 pounds (or more) of fish oil per quarter are required by the amended order to report this use to the Bureau of the Census, Washington 25, D. C., on Census Forms BM-1 and BM-2. If a manufacturer has been reporting his use to the Census under FDO-42, the general order on fats and oils, he should continue to do so. If he has not heretofore reported, but is now subject to provisions of FDO-60 amended, he should report his usage (of 6,000 pounds or more) to the Bureau of Census on the Census forms. Census Forms BM-1 and BM-2 are the same forms used in reporting on all fats and oils under FDO-42.

No provision has been made in the amended order for the exempt use of oil in products delivered to the Armed Services, as FDO-59 creates a reserve from which oil for these purposes is allocated when necessary.

Amendment 1 to FDO-60, which is a complete revision of the original order, is excerpted as follows:

(a) (1) "Fish oil" means oil, other than oil produced solely from the livers of fish or marine animals, produced by the reduction of the whole or any part, including offal, of any fish or marine animal of the following species, commonly known as: California Sardine or Pacific Coast Pilchard (Sardina caerulea), Menhaden (Brevoortia tyrannus), Alaska Herring (Clupea pallasii), West Coast Mackerel (Scomber diego), Tuna and tuna-like fish, Salmon

(Genus: Oncorhynchus), Rosefish (Sebastes marinus), and Alaska Seal. The term shall include all such oil, whether crude, refined, pressed, sulphonated or otherwise processed; all the by-products and derivatives of such oil, other than pitch, including foots, stearine, and fatty acids; and the "fish oil" content of any other product.

(5) "Quota period" means the twelve-month period beginning on October 1, of any year and ending on September 30, of the following year. For the purposes of this order, the first quota period shall begin on October 1, 1943.

(6) "Calendar quarter" means the several three-month periods of the year beginning on January 1, April 1, July 1, and October 1. For the purpose of this order, the first calendar quarter shall begin on October 1, 1943.

(b) Restrictions on use and consumption. Except as provided for in paragraph (c) of this order, no manufacturer shall use or consume fish oil, unless and except as specifically authorized by the Director. Applications for such authorizations shall be made on Form FDA-478, or such other form or forms as the Director may prescribe.

(c) Exceptions. Notwithstanding the provisions of paragraph (b) hereof, specific authorization by the Director shall not be required for:

(1) The use or consumption by any manufacturer in any quota period of fish oil, other than Alaska Herring Oil or Alaska Seal Oil, in any class of use listed in Schedule A below, in a quantity not in excess of a quota equal to the percentage specified in such Schedule A of the fish oil, other than Alaska Herring Oil or Alaska Seal Oil, used by such manufacturer in such class of use during the calendar year of 1942.

Schedule A

Class of use:	Permitted percentage
Manufacture of shortening	60
Manufacture of water soluble soaps	60
Manufacture of linoleum, felt base floor covering, and oil cloth used for floor covering	60
Manufacture of oil cloth for all purposes other than floor coverings, and all coated fabrics	60
Canning of salmon	100

A quota established hereunder for one class of use may not be transferred to another class of use.

(2) The use or consumption by any manufacturer in any calendar quarter of fish oil, other than Alaska Herring Oil or Alaska Seal Oil, in any class of use listed in Schedule B below, in a quantity not in excess of a quota equal to the percentage specified in such Schedule B of the fish oil, other than Alaska Herring Oil or Alaska Seal Oil, used by such manufacturer in such class of use during the corresponding calendar quarter of 1942: Provided, however, That with respect to the calendar quarter beginning on October 1, 1943, any manufacturer may, without specific authorization from the Director, use or consume, in the period beginning on November 1, 1943 and ending on December 31, 1943, in each class of use listed in Schedule B below, a quantity of fish oil, other than Alaska Herring Oil or Alaska Seal Oil, equal to two-thirds of his quota for such class of use for such quarter, without regard to the quantity of fish oil used or consumed by him in such class of use in October 1943.

Schedule B

Class of use:	Permitted percentage
Manufacture of vitamin feeding oil having a guaranteed minimum potency of 400 A.O.A.C. units of Vitamin D per gram	100
Manufacture of medicinals or pharmaceuticals for human or animal consumption	100
Manufacture of natural leather	100
Manufacture of terne plate, galvanized metal, and hot dipped tin	100
Manufacture of caulking compounds and putties	100
Manufacture of paints, varnishes, lacquers, and other protective coatings, except alkyd resins	60

A quota established hereunder for one class of use may not be transferred to another class of use.

(3) The use or consumption by any manufacturer of any fish oil, other than Alaska Herring Oil or Alaska Seal Oil, in the manufacture of alkyd resins, or metallic soaps; or as a rubber compounding ingredient in the manufacture of natural or synthetic rubber products.

(4) The use or consumption by any manufacturer of Alaska Herring Oil or Alaska Seal Oil in the manufacture of natural leather.

(5) The use or consumption by any manufacturer of any fish oil, other than Alaska Seal Oil, in the manufacture of lubricants and metal working compounds, other than core oils.

(6) The use or consumption by any feed manufacturer of any vitamin feeding oil containing not less than 400 A.O.A.C. units of Vitamin D per gram.

(7) The use or consumption of fish oil, other than Alaska Seal Oil, in any calendar quarter, by any manufacturer, other than a feed manufacturer, who does not use or consume in excess of 1000 pounds of fish oil during such calendar quarter.

(d) Restrictions on processing. Unless and except as specifically authorized by the Director, no person shall process Alaska Seal Oil, except in such a manner as to render it suitable for use or consumption in the manufacturing of natural leather; or Alaska Herring Oil, except in such a manner as to render it suitable for use or consumption either in the manufacture of natural leather or in the manufacture of lubricants and metal working compounds, other than core oil.

(e) Restriction, on delivery. Unless and except as specifically authorized by the Director, no person shall deliver crude fish oil or crude fish oil to which vitamins may have been added, if such oil does not contain 400 A.O.A.C units of Vitamin D per gram, to any person other than a manufacturer or a person who processes such oil for sale to a manufacturer.

(f) FDO 42. The restrictions of this order shall be construed as being supplemental to the restrictions of Food Distribution Order 42, as amended.

(m) Territorial extent. This order shall apply only to the forty-eight States of the United States, the District of Columbia, and the Territory of Alaska.

VITAMIN A ADVISORY COMMITTEE FORMED BY OPA

A formal advisory committee for the vitamin A industry has been appointed to confer with the Office of Price Administration regarding pricing and distribution problems, OPA announced on November 19. Oil derived from certain fish livers, notably those of the soupfin shark, halibut, and dogfish, is presently the only commercial source of vitamin A.

A meeting was held in Chicago, Thursday, November 18, when the provisions of a proposed amendment to the regulation covering vitamin A oils were discussed with OPA representatives. Bayard Taylor, OPA regional price executive in Chicago, presided. Joseph D. Coppock, price executive, Chemicals and Drugs Price Branch, and E. W. Ranson, and J. W. Reid of the Washington office also attended.

The advisory panel is an outgrowth of numerous conferences held between representatives of OPA and all branches of the vitamin A industry. All interested groups are represented on the committee including fishermen, producers on the east and west coasts, and vitamin A concentrators. The members of the committee and the groups represented are:

1. Fishermen: Lyle Branchflower, Lyle Branchflower Company, Seattle, Washington.

2. Oil producers: Perc S. Brown, National Oil Products Company, Harrison, New Jersey; George W. Burchard, Jr., Washington Laboratories, Seattle, Washington; Earling F. Week, Jr., Technical Fisheries Company, San Francisco; Price M. French, Shark Industries,Inc., Hialeah, Florida; A. H. Mendonca, F. E. Booth Company, Inc., San Francisco; H. O. McCutchan, Mead Johnson Company, Evansville, Indiana, P. H. Fish, California Packing Corporation, San Francisco.

3. Concentrators: G. C. Mees, Distillation Products, Incorporated, Rochester, New York; Charles C. Dawes, Dawes Products Company, Chicago.

ALASKAN FISH MEAL CONSIDERED IMPORTED PRODUCT

Alaskan fish meal or scrap and Alaskan dry rendered tankage and other animal product feedingstuffs sold within the United States are to be considered "imported" products for the purpose of allowing them the same maximum prices as similar products produced in a foreign country, the Office of Price Administration announced on November 4.

Clarifying its definition of "imported," OPA said that the term, as applied to these Alaskan products, means commodities produced outside the forty-eight states and the District of Columbia. This action was taken through Amendment No. 5 to Revised Price Schedule 73 (Fish Meal) and Amendment No. 4 to Revised Maximum Price Regulation 74 (Animal Product Feedingstuffs), effective November 9, 1943.

Foreign Fishery Trade

TREATY FISH IMPORTS TOTAL 14,828,000 POUNDS AS OF NOVEMBER 27

With December totals yet to be included, imports of fresh and frozen cod, haddock, hake, pollock, cusk, and rosefish for 1943 had absorbed 83.3 percent of the year's quota to November 27, according to the Treasury Department's Bureau of Customs. Of the quota of 17,804,128 pounds allowed under Customs Limitations Paragraph 717(b), Tariff Act of 1930, for the calendar year, imports of 14,828,350 pounds were recorded to November 27.

WHOLESALE AND RETAIL PRICES

The wholesale price index on all commodities increased 0.1 percent in the four-week period ending September 18, according to information furnished by the Bureau of Labor Statistics. On September 14, the retail index on all foods stood at 137.4 percent of the 1935-39 average, 0.1 percent above one month earlier and 8.5 percent above September 15, 1942.

Wholesale and Retail Prices

Item	Unit		Percentage change from--	
Wholesale: (1926 = 100)		Sept. 18, 1943	Aug. 21, 1943	Sept. 19, 1942
All commodities	Index No.	102.9	+0.1	+3.6
Foods	do	104.5	-1.2	+2.5
		September 1943	August 1943	September 1942
Fish:				
Canned salmon, Seattle:				
Pink, No. 1, tall	$ per dozen cans	1.970	0	1/
Red, No. 1, tall	do	3.694	0	1/
Cod, cured, large shore, Gloucester, Mass.	$ per 100 pounds	13.000	+ 2.0	+ 13.0
Herring, pickled, N. Y.	¢ per pound	12.0	0	+ 20
Salmon, Alaska, smoked, N. Y.	do	35.0	1/	0
Retail: (1935-39 = 100)		Sept. 14, 1943	Aug. 17, 1943	Sept. 15, 1942
All foods	Index No.	137.4	+0.1	+8.5
Fish:				
Fresh and canned	do	208.5	+3.1	+24.0
Fresh and frozen	¢ per pound	33.4	+3.6	+26.8
Canned salmon:				
Pink	¢ per pound can	23.6	0	+8.3
Red	do	41.7	0	+2.7

1/ No quotation.

VALUE OF FISHERY PURCHASES BY FDA REACHES $8,256,159 IN AUGUST

Largely because of much greater purchases of dry-salted fish and canned salmon, the total value of fishery products purchased by FDA in August amounted to $8,256,159, according to information furnished by the Department of Agriculture. This surpassed the totals for each of the previous months of 1943 and brought the total for the first eight months of the year to $28,802,238. Purchases of food and non-foodstuffs for Lend-lease, territorial emergency, Red Cross, and other purposes during August were valued at $124,278,130.

Purchases of Fishery Products by F.D.A.

Commodity	Unit	August, 1943		Jan. 1--Aug. 31, 1943		Mar. 15, 1941--Aug. 31, 1943	
		Quantity	F.O.B. Cost	Quantity	F.O.B. Cost	Quantity	F.O.B. Cost
FISH			Dollars		Dollars		Dollars
Clams, canned	Cases	500	4,475	2,900	22,235	2,900	22,235
Herring, do	do	15,902	62,029	26,492	112,857	277,374	886,443
Mackerel, do	do	38,641	272,547	217,908	1,239,762	779,059	4,021,544
Oysters, do	do	-	-	1,100	14,740	1,100	14,740
Pilchards, do	do	64,812	289,048	891,179	3,593,688	5,623,227	20,519,904
Salmon, do	do	244,035	2,414,830	716,621	7,002,623	5,812,629	55,467,792
Shrimp, do	do	20,924	239,190	22,629	257,985	22,629	257,985
Sardines, do	do	204,260	831,307	635,077	2,585,738	2,764,999	10,992,706
Tuna and tuna-like fishes, do	do	46,299	957,964	327,331	4,924,776	327,331	4,924,776
Fish, misc. canned	do	-	-	43,502	272,596	63,502	388,596
Fish, flaked do	do	-	-	2,343	30,124	39,294	347,003
Fish, ground do	do	-	-	90,000	268,750	90,000	268,750
Total		635,373	5,071,390	2,977,082	20,325,874	15,804,044	98,112,474
Fish, dry salted	Lbs.	15,120,000	2,591,466	18,945,924	3,090,056	30,461,444	4,645,097
Fish, pickled	do	381,800	27,638	1,780,300	150,763	1,780,300	150,763
Fish, smoked	do	-	-	48,600	4,374	48,600	4,374
Total		15,501,800	2,619,104	20,774,824	3,245,193	32,290,344	4,800,234
BYPRODUCTS							
Fish oils, crude	do	6,120,000	544,680	22,500,000	2,002,500	22,500,000	2,002,500
Fish meal	do	540,000	20,985	2,342,100	90,145	4,661,200	181,397
Oyster shell flour	do	-	-	200,000	685	1,550,000	5,268
Oyster shell grits	do	-	-	300,000	1,253	1,580,000	6,270
Total		6,660,000	565,665	25,342,100	2,094,583	30,291,200	2,195,435
VITAMINS							
Vitamin A fish liver oil	M Units	-	-	9,760,317	1,673,667	39,804,338	6,080,074
Vitamin A and D fish liver oil	Gallons	-	-	252,192	1,462,921	258,842	1,485,988
Total		-	-	-	3,136,588	-	7,566,062
Grand total		-	8,256,159	-	28,802,238	-	112,674,205

INDEX OF FEDERAL CONTROLS PERTINENT TO THE FISHING INDUSTRY
(Effective During September and October 1943)

Title	Series*	Action	Effective on	FMN Page
Allocations	(WFA)	Covers 1943-44 fish supplies	9/11	0 47
Cable, armored	L-165	Revokes prohibition on manufacture	9/18	-
Cases, salmon	(WFA)	Covers sleeving charges on V-1, 2's	9/6	0 63
Chemicals	M-161, Am.	Removes silicate of soda, soda ash, and caustic soda from Schedule A	9/30	-
_____	__332, __	Relaxes restrictions on use, delivery of fish oils in paints, varnishes	10/6	-
"Claimant agencies"	CMP-1, Int. 20	Clarifies term "procuring"	10/26	-
Construction	(WPB)	Outlines procedure for processing of applications for $10,000 and under	10/21	-
Containers	M-221, Am.	Relaxes certain restrictions on use and purchase of burlap bags, permits cotton bags for shellfish	9/11	-

*For abbreviations, see similar Index, May issue Fishery Market News, p. 34

Title	Series*	Action	Effective on	FMN Page
Containers, burlap	RPS-18,Am.4	Sets ceilings on DSC supplies sold	10/25	-
_____, _____	MPR-151,Am.3	Modifies certain ceilings on new bags	10/30	-
_____, drum	L-197,Am.	Permits use for fish oil, etc., revokes action of M-255 re. allocations	10/2	0 73
_____, _____	MPR-43	Sets ceiling service charges for reconditioning 50-58 gal. sizes	10/12	0 74
_____, fibre	L-317	Controls manufacture and use of new ones	10/11	-
_____, _____	(WPB)	Indicates users of new one may not exceed their footage, tonnage quotas	10/15	-
_____, paper	M-351	Limits frozen fish-wrapping papers to certain types, weights	9/22	-
_____, tin	M-81,Am.	Affects packing quotas, can sizes and materials, for '43, '43-44 seasons	10/23	0 71
_____, wooden	MPR-481	Fixes new ceilings on knife-cut slack staves, heading, cooperage	4/10	0 39
_____, _____	L-232,Am.	Includes pet foods in limitations on make, use, etc., of wooden boxes	10/25	0 40
Controls, heating	L-79,Am.	Removes certain types of heating system controls from distribution restrictions	9/13	-
Conveyors	L-287,Am.	Covers portable conveyors and components	5/10	-
_____	L-193,Am.	Covers use of critical materials in manufacture of conveying, etc., machinery	9/16	-
Copper	M-9-C,Am.	Exempts use in commercial fishing equipment and supplies, valves, etc.	10/4	-
_____	_____-4,Am.	Exempts refrigeration, industrial processing systems from Division screening	10/19	-
Cordage	M-84,Am.	Requires manufacturers to set aside part of production for non-military orders	10/29	0 29
Deferment	LBM-115D	Lists terms by which fishermen, etc., keep off-season status	10/2	0 42
Engines	M-293,Table 8,Am.	Clarifies definitions of certain equipment items	9/29	-
Equipment	L-83,Am.	Covers sales, orders on packaging, labeling, food-processing machinery	9/6	-
_____	L-111,Am.	Covers limitations on acceptance of orders for hand trucks, etc.	9/6	-
_____	L-292,Am.	Limits sale, delivery, acceptance on food, fish oil processing machinery	9/6	-
_____, canning	_____,Q.S.III	Sets forth quota limits for manufacture of 150 types	10/16	0 71
_____, industrial	L-193,Am.	Puts scheduling under Gen. Sch. Order M-293	10/26	-
_____, laboratory	PR-3,Am.2	Permits certain manufacturers to use AA-1 rating to obtain	9/27	-
_____, _____	L-144,Am.	Eases control over distribution, purchase orders	10/9	-
Exchanger, heat	L-172,Am.	Covers make, deliveries, scheduling provisions of	10/26	-
Exports	(OEW) CEB-124	Simplifies requirements for goods in free supply	10/1	0 77
_____ (Canada)	D of T and Comm.	Suspends issuance of permits for lake trout up to 5 tons	10/18	0 76
Facilities, Class A	CMP-Reg.1, Dir.34,Am.	Applications for authority to purchase must be filed with local WPB offices	10/19	0 39
Fats and Oils	FDO-42,Am.2	Affects soaps, vitamin oils, linoleum, etc., under new quota schedules	10/14	-
_____	___-86	Adjusts soap formulas - affecting fish oils - to increase supplies	10/18	-
_____	___-87	Exempts fish or marine oil fatty acids, etc., from inventory restrictions	11/1	-
Fibers	(Mar. Comm.)	Outlines conservation program affecting manila, sisal	10/14	0 38
_____ coir	M-312,Am.	Permits special grade use in making ships fender matting	9/23	-
Fish, canned	SO-75	Provides discounts under ceilings to civilian purchaser on all processors' sales to Federal procurement agencies	10/18	0 66
_____, _____	RO-16,Am.75	Provides point free supplies to fishermen	11/4	0 70
_____, _____ ground	(FDA)	Announces offers to purchase in FSC-1524	9/3	0 70
Fish, fresh	MPR-418,Am.6	Sets ceilings on 6 imported Canadian freshwater species	9/14	0 1
_____, _____	_____,___7	Sets ceilings on salmon and sablefish	9/2	0 1

Title	Series*	Action	Effective on	FMN Page
Fish, fresh	MPR-418,Am.8	Revises ceilings on Schedules No.4,6, 43-48, and 61	9/21	0 1
___, ___	___,__ 9	Announces changes in ceiling rules for sales and delivery at w. level	10/4	0 1
___, ___	___,___	Corrects amended regulation with reference to transportation	10/13	0 1
___, ___	___,__ 10	Suspends effective date of MPR-418,Am.6 to 10/15	9/14	0 1
___, ___	___,__ 11	Suspends ceilings on shrimp and prawn sales for secondary w'ers	9/28	0 1
___, ___	___,__ 12	Postpones effective date of MPR-418,Am.6 to 12/1; removes 2¢ tuna differential	10/15	0 1
___, ___	___,__ 13	Puts lake herring under price control at about 1942 averages	10/23	0 1
___, ___	___,__ 14	Adds cent a pound to ceilings on certain species landed ex-vessel, N.Y.C.	10/29	0 1
___, ___	___,__ 15	Advances chum salmon ex-vessel ceilings 1½ cents a pound, Sept.-Dec.	10/25	0 1
___, ___	___,Reg.0	Amends ceilings on silver & fall salmon	10/26	0 55
___, ___	___,Am. Reg.0,G 2(VIII)	Sets ceilings on transportation allowances (California)	10/1	-
___, ___	(OPA)	Wholesaler's Bulletin No.6 on MPR-418,Ams. 1-7 inc.	9/16	-
___, ___	MPR-439,Am.2	Says ceilings for retail sales apply only to 48 states, D.C., and Alaska	8/20	S 27
___, ___	___,__ 3	Adds 8 items of Pacific, Canadian, Gulf waters to retail list	9/15	-
___, ___	___,__ 4	Says sales to eating places must observe w. ceilings, etc.	10/15	0 55
___, ___	___,Reg.0 1	Sets ceilings on fishing grounds (Alaska)	8/30	S 27
___, ___ and frozen	(T.D.)	Enlarges tariff-rate quota on certain species from Canada	10/2	0 76
Fish, frozen	MPR-364,Am.4	Sets processors' ceilings on shrimp, prawn	9/4	S 32
___, ___	___,__ 5	Revises above: on prices, definitions	9/23	0 59
___, ___	___,__ 6	Sets winter prices on many species at processor, or freezer, level	10/20	0 60
___, salt	RMPR-384	Revises regulation controlling prices on 5 species at processor level	9/21	0 66
Fish netting	(WPB,Dir.)	Puts 4th quarter production on scheduled basis	9/27	0 28
Fish, processed	(OPA-Region 8)	Sets ceilings on certain services at top 41-42 season amounts	9/11	0 64
Fish and shellfish	FDO-72,Am.1	Assures equitable distribution on 7 species of imported salted varieties	9/3	0 77
Foods, processed	RO-13,Am.72	Defines frozen processed foods	10/25	0 60
___, ___	___,__ 73	Redefines "processor" and place where foods are frozen	10/25	0 60
Hardware, marine	M-293,Table 5, Am.	Exempts potential buyers for under $100 worth from need to apply on WPB-2683	9/30	0 29
Herring, sardines	(Treas. Dept.)	Permits Canadian vessels to enter and land in Maine and N.H.	9/16	S 7
Herring (sea), Alewives	MPR-396,Am.1	Provides discount to procurement agencies by Atlantic canners	10/18	-
Imports	M-63,Am.	Lists affected fibers, oils imported in bond, in transit, etc.	9/23	-
___	___-a,Am.	Specifically adds certain fibers, processed fish to list	9/23	-
Instruments	L-234,Am.	Revokes L-234, re. control valves, thermometers, etc.	10/4	-
___,electric	L-203,Am.	Amended to conform the order with Gen. Sch. Order M-293	10/26	-
Lumber	L-218,Am.	Excludes all but Wash. and Ore. producers from provisions of L-218	9/23	-
Manpower	CLR-3,Am.	Permits employment of minors 14-16 in raw shrimp houses	10/9	0 42
___	(WMC)	Outlines provisions to assure transfer of workers to war jobs and to keep essential workers already on useful war jobs where they are	10/15	-
Manufacturers, Class A	CMP-Reg.1, Dir. 27	Indicates they may designate quarter in which allotments from customers are made	9/11	0 39

Title	Series*	Action	Effective on	FMN Page
Materials	CMP-Reg.1,Am.3	Covers time length between orders for steel castings and deliveries, etc.	9/2	-
_____	(WPB)	Directs portion of production of certain items to go to civilians	9/9	-
_____	_____	Outlines alternatives to issuance of allotments	9/14	-
(Materials)	CMP-Reg.1,Am.	Revises small order procedure; provides for tentative acceptances; etc.	10/4	-
_____	_____,Dir. 16,Am.	Lays down rule on customer replacements to producers on rejected steel	10/9	-
_____	_____,___ 22,Am.1	Outlines way for manufacturer to apply for "special allotments"	9/11	-
_____	_____,___ 25	Classes steel forgings sold by warehouse as "controlled material"	9/2	-
_____	_____,___ 26	Outlines procedure for allotment return, by secondary consumers	9/11	-
_____	_____,___ 28	Directs replacement by buyer, of those lost or stolen, without new allotment	9/11	-
_____	_____,Dirs. 29-31	Covers orders for certain alloys under OEW and Lend-Lease allotment numbers	9/13	-
_____	_____,Dir. 32	Permits brass mills to ship orders for under 200 lbs. under certain conditions, etc.	9/27	-
_____	_____,___ 34	Outlines alternate procedure to follow for potential buyers under CMP-Reg. 6	10/4	-
_____	_____,Int. 18	Forbids manufacturers to trace end-use of products to indicate Claimant Agency pattern	9/14	-
_____	_____,___ 19	Clarifies difference between use of allotment numbers as between A and B product manufacturers	10/8	-
_____	_____3,Dir. 4	Covers procedure governing direct deliveries to distributor's customers	10/11	-
_____	_____4,Am.	Liberalizes free steel provisions for steel, tin and terne plate	10/19	-
_____	_____5,__ Am.1	Refers to ice as "Misc. Prods."; puts radio communication under P-133	10/30	-
_____	CMP-5,Dir.12	Adjusts p.r's assigned for upkeep, etc. to new "relative industrial urgency" pattern	9/13	-
_____	CMP-Reg.5,Dir. 13	Permits manufacturers to exclude labor costs in computing MRO quotas	9/21	-
_____	(WPB)	Revokes CMP-Reg. 1, Dir. 13, dealing with Complete Bills of Materials	10/9	-
_____	_____	Revokes Dir. 18 to CMP-Reg. 1 re. steel deliveries	10/11	-
Oil, castor	FDO-32,Am.	Suspends provisions re. use, delivery 10/-12/31/43: affects slickers, boxes	10/1	-
___, tar (pine)	MPR-446,Am.	Sets specific uniform ceilings for entire country	8/19	S 10
Oils, fish livers	(ICC)	Postpones hearings on rates, transcontinental shipments	9/1	-
____, _____	_____	Sets hearings for 11/15	10/2	S 38
Parts, automotive	CMP-Reg.3,Dir. 5	Covers use of assigned p.r's for make and purchase of replacements	10/16	-
Pilchards	(OCF),Am.1	Covers applications for share of catch	9/28	O 43
_____	OCF-GO 3 (Area II)	Covers dispatching procedures for San Pedro, Long Beach, Wilmington	9/30	-
_____	_____ 4	Indicates definitions universally applicable, etc.	10/5	-
_____	_____ 2	Permits Monterey vessels to deliver to Moss Landing	10/7	-
_____, salted and pickled	(WFA)	Announces offers to buy in Form FSC-1639	10/1	S 34
Pipes	M-293,Table 14	Designates pre-fabricated pipe as an "unclassified product" under GSO, M-293	10/7	-
Prices	SO-78	Indicates ceilings on certain papers, containers apply to imports, also	11/4	-
Priorities	PR-3,Am.,Am.1	Adds paperboard products to List B	9/4	-
_____	__-18,Am.	Subjects parts, components of products "frozen" to product schedules	9/8	-
_____	__-3,Int.6	Indicates trade name may be used in ordering on p.r. certificates	9/8	-
_____	__-16	Governs filing, granting, denial of appeals from various L, M orders	10/7	-

Title	Series*	Action	Effective on	FMN Page
Products, scheduled	M-293, Tables 1-13	Outline program to coordinate component part shipping schedules with end-product manufacturing schedules	9/17	-
Ratings, preference	P-89, Am.	Brings P-89 in line with PR-3 covering method of application, etc.	9/28	-
_____, _____	CMP-Reg. 5, Dir. 6	Excludes pleasure craft from certain permits to use AA-1 for MRO	10/21	-
Rationing	GRO-5, Am. 35	Brings RO 3, 13, and 16 in line with present order, on ship stores	9/14	-
_____	_____, 36	Indicates method for fishing vessels to compute allotments of foods	9/16	-
_____	RO-16, Am. 68	Lists types of records, reports and registrations required for reference	9/16	-
Refrigeration	P-126, Am.	Gives p.r's to aid in getting parts, etc., for emergency refrigeration repairs	9/15	0 60
_____	L-126, Sch. VI, Am. 1	Extends maximum length of copper piping to 25 ft.	9/30	-
Rubber	R-1, Ams. 3, 4	Covers tires, tubes on warehouse trucks; use of cements on boots, shoes	9/7	-
Sales, licensing of	L.O.-1	Extends provisions to cover all sellers of controlled items, services	9/27	0 43
Salmon	MPR-265, Am. 3	Revises regulation controlling prices on canners' sales	9/25	0 63
_____, Alaska	_____, _____	Adjusts regulation controlling canners' sale prices	9/25	0 63
_____, _____ canned	(FDA)	Amends offer of sale form SCP-1436	9/6	0 63
Sardines, Me. canned	(FDA)	Announces offers to purchase in note to packers	9/7	0 70
_____ and Herring, Me.	_____	Requests pack in other than natural oils, etc.	9/7	0 70
_____, Maine	MPR-184, Am. 2	Provides discounts to procurement agencies by canners	10/18	0 1
Services, processing	(OPA-Reg. VIII) Reg. 0, G-50	Gives basis for adjusting ceilings in certain western states	9/11	0 64
Shell, ground	MPR-486	Sets ceilings on, for clam, oyster	11/2	0 72
Steel	(WPB)	Permits increased output of certain civilian products under outlined procedures	8/27	-
_____	L-211	Provides for issuance of schedules for certain steel products	9/2	-
_____	M-21-b-1, Dir. 2	Reduces deliveries of prime quality plate to warehouses	10/25	-
Sugar	(OPA)	Increases Nov.-Dec. allotments for fishing vessels	10/15	-
Supplies, chemical	P-89, Ams.	Simplify procedures governing distribution of	10/30	-
_____, marine	(WPB)	Directs use of Form WPB-646 for inventories	-	0 40
Tar, coal	(OPA)	Indicates customary allowances and discounts must be given to purchasers of different classes	9/15	-
Transportation	GO-17, Am. 3B	Limits fresh and frozen fish, shellfish deliveries to 5 w.; 3 r.-for all U.S.	10/11	-
_____	ODT-18 A	Supersedes ODT-18, Rev., as am., and incorporates Spec. Dirs. 1, 2, 3, etc.	11/1	-
_____	RO-1A, Am. 58	Permits purchase of certain sized used tires for fish delivery trucks	11/1	0 38
Tuna, canned	MPR-165, GO-6, (Reg. VIII)	Covers handling charges in Wash., Ore., and Cal.	8/24	S 26
Values	(OPA)	Covers canned fish point values for September	9/5	S 35
		Point values unchanged for October	9/28	0 70
Valves and parts	L-252, Am.	Relieves producers of having firm orders as prerequisite for manufacture	9/18	-
Vessels	Exec. Order	Establishes Advisory Board on Just Compensation	10/15	0 26
_____	(WSA)	Coordinates program with above Order re. valuation, payment for title, use	10/19	0 27
_____ (materials)	(WPB-646)	Outlines way for ship chandlers, etc., to obtain maintenance gear, etc.	10/13	0 27
_____ _____	L-236, Sch. III	Simplifies practices affecting sizes, types of certain marine fittings, etc.	10/14	0 29
Waders, armpit	(ORD) List 21	Permits manufacture	10/1	0 38
Wire and cable	M-348	Puts polyethylene under allocation	10/1	-

THE COVER PAGE

As part of a concerted attempt to stimulate new fishing activity in the Gulf of Mexico and South Atlantic areas, the "Jeff Davis" has been loaned by its owner to the Fish and Wildlife Service, fully equipped, for exploratory purse seining, trawling, and other fishing, for a period of six months. This 65-foot fishing vessel, pictured on the cover, was launched November 17 at St. Augustine, Florida. The "Jeff Davis" was designed along the lines of Pacific Coast purse seine vessels, and its use in the South Atlantic and Gulf area is expected to demonstrate new possibilities in fishing and fishing methods. The Service has assigned one of its Fishery Engineers, Carl B. Carlson, to the "Jeff Davis" to supervise and direct the experimental fishing operations.

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RECENT FISH AND WILDLIFE SERVICE PUBLICATIONS

Conservation Bulletins[1]

Conservation Bulletin 27.--Wartime Fish Cookery
" " 28.--Home Canning of Fishery Products
" " 33.--Fish and Shellfish of New England
" " 34.--Fishes of the Middle West

Fishery Leaflets[1]

F.L.#5. Sardines
" #13. Soft and Hard Clams of the Atlantic Coast of the United States
" #14. Pacific Salmons
" #15. Lake Trout
" #18. Home Preservation of Fishery Products, or Salting, Smoking and Other Methods of Curing Fish at Home
" #19. Cooking Carp
" #20. Canning Tuna
" #21. How to Cook the Burbot
" #22. Increasing the Production of Oysters and Other Shellfish in the United States
" #25. List of Publications on Irish Moss
" #26. Salted River Herring (Alewives) in Chesapeake Bay
" #29. Crab Scrap as Poultry Feed
" #30. Preparation of Three Fishes of the Pacific Coast. (Shark, Shad and "Lingcod")
" #33. Whale Meat
" #36. The Food Value of Fish and Shellfish
" #37. Canning Atlantic and Gulf Oysters
" #38. Brine Salted Herring
" #39. The Utilization of Echinoderms and of Gasteropod Mollusks
" #40. The Transportation of Frozen Live Fishes.

"Separates"[2] reprinted from Fishery Market News

Sep. No. 6.--New Weapon Against Oyster-killing Starfish
" " 7.--The Canning of Maine Sea Herring
" " 9.--Atlantic Sea Mussels as Food
" " 10.--Seasons, Sources, and Sizes of Gulf Shrimp
" " 11.--Essential Commercial Fishing Activities Listed by Selective Service
" " 14.--The Oyster Canning Industry in South Carolina
" " 15.--The Controlled Materials Plan with Relation to the Fishing Industry
" " 16.--Preliminary Report on Definitions and Recommended Substitutes for Vessel and Gear Cordage Items
" " 17.--Wartime Transportation and the Fishing Industry
" " 18.--Seed Oyster Production in South Carolina
" " 19.--Loss in Weight and Mortality of Sea Mussels Kept in Storage at Different Temperatures
" " 20.--Production of Fishery Products in Ala., La., Miss., & Texas During 1942
" " 23.--The Commercial Importance of Seaweed Gums in the United States
" " 24.--Brine Salted Mullet
" " 26.--Compliance with the Federal Food, Drug, and Cosmetic Act in the Marketing of Fishery Products
" " 27.--Preservation and Care of Fish Nets
" " 28.--Control and Distribution of Fish Supplies in Great Britain and Northern Ireland
" " 30.--Technological Investigations - Program of Research 1943-44
" " 31.--Judging the Quality and Freshness of Fish by Organoleptic Methods
" " 32.--Dry Ice Refrigeration of Fresh Fish Fillets
" " 33.--Keeping Quality of East Coast Crab Meat in Fibre Containers and in Tin Cans
" " 34.--The Nutritive Value of the Protein of Some Dehydrated Fishery Products
" " 35.--Studies on Substitute Containers for Canned Fishery Products
" " 36.--The Suitability of Non-tin Containers for Shipping Fresh Seafoods
" " 37.--Effect of Packaging Methods on Spoilage of Crab Meat
" " 38.--Studies on the Icing of Fresh-cooked East Coast Crab Meat
" " 39.--Notes on Canning Ground Fish
" " 40.--Receipts of Fishery Products at Seattle, 1942

1/ Obtainable free upon request from Fish and Wildlife Service, Dept. of the Interior, Chicago 54, Illinois.
2/ Obtainable free upon request from Fish and Wildlife Service, Dept. of the Interior, Washington 25, D. C.

Note: The supplies for free distribution of printed publications and processed leaflets is limited, hence, no more than one copy each of five publications may be sent free to an individual. If in quantities of more than five of the Conservation Bulletins are desired, it is often possible to obtain them free by applying to a Senator, Representative, or Delegate of Congress, as four-fifths of the editions of Conservation Bulletins contributed by the Fish and Wildlife Service are by law allotted to members of Congress for distribution.

FISHERY TRADE INDICATORS

(Expressed in Thousands of Pounds)

Item	Month	Latest month	Same month a year ago	Previous month
FRESH FISH LANDINGS				
Boston, Mass.	August	14,468	17,085	12,146
Gloucester, Mass.	do	26,491	24,535	25,073
Portland, Maine	do	2,314	1,646	2,392
Boston, Gloucester, and Portland:				
Cod	do	3,767	2,018	2,561
Haddock	do	7,928	8,489	6,492
Pollock	do	479	652	335
Rosefish	do	15,400	16,112	12,549
FISH RECEIPTS, CHICAGO[1/]				
Salt-water fish	do	4,047	1,872	3,125
Fresh-water fish	do	3,689	2,416	3,071
Shellfish, etc.	do	803	690	719
By truck	do	1,512	1,362	1,586
By express	do	4,459	2,247	3,661
By freight	do	2,568	1,369	1,668
COLD-STORAGE HOLDINGS[2/]				
New York, N. Y.:				
Salt-water fish	September	7,325	6,736	5,365
Fresh-water fish	do	1,921	1,458	1,690
Shellfish, etc.	do	1,590	1,111	900
Boston, Mass.:				
Salt-water fish	do	12,201	17,751	11,403
Fresh-water fish	do	34	33	23
Shellfish, etc.	do	1,576	458	1,116
Chicago, Ill.:				
Salt-water fish	do	2,807	1,538	2,299
Fresh-water fish	do	1,442	1,715	1,191
Shellfish, etc.	do	635	352	577
Unclassified	do	440	343	453
United States:				
Cod fillets	do	2,616	3,848	1,565
Haddock fillets	do	2,374	9,648	1,485
Halibut	do	13,228	14,141	11,124
Mackerel (except Spanish)	do	7,840	8,931	6,846
Croakers	do	2,705	3,103	2,360
Rosefish fillets	do	3,113	5,358	2,221
Salmon	do	6,902	9,170	3,651
Whiting	do	11,400	15,026	8,949
Shrimp	do	2,418	2,494	1,958
New England, all species	do	22,589	32,995	19,031
Middle Atlantic, all species	do	19,863	20,820	16,092
South Atlantic, all species	do	5,576	6,055	5,348
North Central East, all species	do	11,091	14,311	8,907
North Central West, all species	do	3,108	3,695	2,263
South Central, all species	do	3,230	3,294	2,474
Pacific, all species	do	27,465	28,958	21,818

1/ Includes all arrivals as reported by express and rail terminals, and truck receipts as reported by wholesale dealers including smokers.

2/ Data for individual cities are as of the last Thursday of the month, except those for Boston which are for the last Wednesday of the month. Data on United States holdings by various species and by geographical areas are as of the first of the month for both the "Latest month" and "Previous month," but are as of the 15th of the month for the "Same month a year ago."

Note:--Data for the latest month are subject to revision.

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